



BOARD MEETING AGENDA
Monday, May 8, 2017
Regular Meeting - 7:00 P.M.

Union Sanitary District
Administration Building
5072 Benson Road
Union City, CA 94587

Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

1. Call to Order.

2. Pledge of Allegiance.

3. Roll Call.

- Motion 4. Approve Minutes of the Special Meeting of April 5, 2017.

- Motion 5. Approve Minutes of the Meeting of April 24, 2017.

- Motion 6. Approve Minutes of the Special Meeting of April 25, 2017.

7. Written Communications.

8. Oral Communications.
The public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District office at least one working day prior to the meeting). This portion of the agenda is where a member of the public may address and ask questions of the Board relating to any matter within the Board's jurisdiction that is not on the agenda. If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. Oral comments are limited to three minutes per individuals, with a maximum of 30 minutes per subject. Speaker's cards will be available in the Boardroom and are to be completed prior to discussion.

- Motion 9. Select Board Members to Represent Union Sanitary District on External Committees for Fiscal Year 2018.

- Motion 10. Consider a Resolution to Adopt the 2017 Standard Specifications and Details *(to be reviewed by the Engineering and Information Technology Committee)*.

- Motion 11. Consider a Resolution to Accept the Construction of the Digesters No. 1 and 3 Gas Isolation Valves Project from TNT Industrial Contractors, Inc. and Authorize Recordation of a Notice of Completion *(to be reviewed by the Engineering and Information Technology Committee)*.

- Information 12. Legislative Update on Regional, State, and National Issues of Interest to the Board *(to be reviewed by the Legislative Committee)*.

- Information 13. Status of Priority 1 Capital Improvement Program Projects *(to be reviewed by the Engineering and Information Technology Committee)*.
-
- Information 14. Third Quarterly Report on the Capital Improvement Program for FY 17 *(to be reviewed by the Engineering and Information Technology Committee)*.
-
- Information 15. Cal-Card Quarterly Activity Report *(to be reviewed by the Budget & Finance Committee)*.
-
- Information 16. Board Expenditures for the 2nd and 3rd Quarter of Fiscal Year 2017 *(to be reviewed by the Budget & Finance Committee)*.
-
- Information 17. Report on the East Bay Discharger Authority (EBDA) Meeting of April 20, 2017.
-
- Information 18. Check Register.
-
- Information 19. Committee Meeting Reports. *(No Board action is taken at Committee meetings):*
- a. Legislative Committee – Thursday, May 4, 2017, at 4:30 p.m.
 - Director Fernandez and Director Kite
 - b. Engineering and Information Technology Committee – Friday, May 5, 2017, at 9:30 a.m.
 - Director Kite and Director Toy
 - c. Budget & Finance Committee – Friday, May 5, 2017, at 2:00 p.m.
 - Director Handley and Director Lathi
 - d. Personnel Committee – will not meet.
 - e. Audit Committee – will not meet.
 - f. Legal/Community Affairs Committee – will not meet.
-
- Information 20. General Manager’s Report. *(Information on recent issues of interest to the Board)*.
-
21. Other Business:
- a. Comments and questions. *Directors can share information relating to District business and are welcome to request information from staff.*
 - b. Scheduling matters for future consideration.
-
22. Adjournment – The Board will adjourn to the Fiscal Year 2018 Budget Board Workshop in the Boardroom on Tuesday, May 16, 2017, at 5:30 p.m.
-
23. Adjournment – The Board will then adjourn to the next Regular Meeting in the Boardroom on Monday, May 22, 2017, at 7:00 p.m.

The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting).
 If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board’s jurisdiction but not on the agenda, the speaker will be heard at the time “Oral Communications” is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker’s cards will be available in the Boardroom and are to be completed prior to discussion of the agenda item.

The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager’s office at (510) 477-7503 at least 24 hours in advance of the meeting.
 THE PUBLIC IS INVITED TO ATTEND



LEGISLATIVE COMMITTEE MEETING
Committee Members: Director Fernandez and Director Kite

Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

AGENDA
Thursday, May 4, 2017
4:30 p.m.

Alvarado Conference Room
5072 Benson Road
Union City, CA 94587

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

1. Call to Order

2. Roll Call

3. Public Comment

4. Items to be reviewed for the Board meeting of May 8, 2017:
 - Legislative Update on Regional, State, and National Issues of Interest to the Board._____
5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings.

The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting).

If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board's jurisdiction but not on the agenda, the speaker will be heard at the time "Public Comment" is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker's cards will be available and are to be completed prior to discussion of the agenda item.

The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager's office at (510) 477-7503 at least 24 hours in advance of the meeting.

THE PUBLIC IS INVITED TO ATTEND



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

**ENGINEERING & INFORMATION TECHNOLOGY
COMMITTEE MEETING**
Committee Members: Director Kite and Director Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

AGENDA
Friday, May 4, 2017
9:30 A.M.

Karen W. Murphy
Attorney

Alvarado Conference Room
5072 Benson Road
Union City, CA 94587

**THIS MEETING WILL BE TELECONFERENCED WITH DIRECTOR KITE FROM THE EXTERIOR OF
35040 NEWARK BOULEVARD, NEWARK, CALIFORNIA.
THE TELECONFERENCE LOCATION SHALL BE ACCESSIBLE TO THE PUBLIC.**

1. Call to Order

2. Roll Call

3. Public Comment

4. Items to be reviewed for the Board meeting of May 8, 2017:
 - Consider a Resolution to Adopt the 2017 Standard Specifications and Details.
 - Consider a Resolution to Accept the Construction of the Digesters No. 1 and 3 Gas Isolation Valves Project from TNT Industrial Contractors, Inc. and Authorize Recordation of a Notice of Completion.
 - Status of Priority 1 Capital Improvement Program Projects.
 - Third Quarterly Report on the Capital Improvement Program for FY17.

5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings. The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting). If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board's jurisdiction but not on the agenda, the speaker will be heard at the time "Public Comment" is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker's cards will be available and are to be completed prior to discussion of the agenda item.

The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager's office at (510) 477-7503 at least 24 hours in advance of the meeting.

THE PUBLIC IS INVITED TO ATTEND



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

BUDGET & FINANCE COMMITTEE MEETING
Committee Members: Director Handley and Director Lathi

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

AGENDA
Friday, May 5, 2017
2:00 P.M.

Karen W. Murphy
Attorney

Alvarado Conference Room
5072 Benson Road
Union City, CA 94587

1. Call to Order

2. Roll Call

3. Public Comment

4. Items to be reviewed for the Board meeting of May 8, 2017:
 - Cal-Card Quarterly Activity Report.
 - Board Expenditures for the 2nd and 3rd Quarter of Fiscal Year 2017.

5. Adjournment

Items reviewed at committee meetings will be included in the agenda packet for the upcoming Board meeting. No action will be taken at committee meetings.

The Public may provide oral comments at regular and special Board meetings; however, whenever possible, written statements are preferred (to be received at the Union Sanitary District at least one working day prior to the meeting).

If the subject relates to an agenda item, the speaker should address the Board at the time the item is considered. If the subject is within the Board's jurisdiction but not on the agenda, the speaker will be heard at the time "Public Comment" is calendared. Oral comments are limited to three minutes per individual, with a maximum of 30 minutes per subject. Speaker's cards will be available and are to be completed prior to discussion of the agenda item.

The facilities at the District Offices are wheelchair accessible. Any attendee requiring special accommodations at the meeting should contact the General Manager's office at (510) 477-7503 at least 24 hours in advance of the meeting.

THE PUBLIC IS INVITED TO ATTEND

**MINUTES OF THE SPECIAL MEETING OF THE
BOARD OF DIRECTORS OF
UNION SANITARY DISTRICT
April 5, 2017**

CALL TO ORDER

President Handley called the special meeting to order at 11:00 a.m.

ROLL CALL

PRESENT: Tom Handley, President
Pat Kite, Vice President
Anjali Lathi, Secretary
Manny Fernandez, Director
Jennifer Toy, Director

STAFF: Paul Eldredge, General Manager
Leah Castella, Special Counsel

ORAL COMMUNICATIONS

There were no oral communications.

CLOSED SESSION

The Board adjourned to Closed Session for the following matters:

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Initiation of litigation pursuant to paragraph (4) of subdivision (d) of Section 54956.9: One potential case

The Board reconvened to Open Session. President Handley reported there was no reportable action.

ADJOURNMENT:

The special meeting was adjourned at approximately 12:00 p.m. to the next Regular Board Meeting in the Boardroom on Monday, April 10, 2017, at 7:00 p.m.

SUBMITTED:

ATTEST:

REGINA McEVOY
BOARD SECRETARY

ANJALI LATHI
SECRETARY

APPROVED:

TOM HANDLEY
PRESIDENT

Adopted this 8th day of May, 2017

**MINUTES OF THE MEETING OF THE
BOARD OF DIRECTORS OF
UNION SANITARY DISTRICT
April 24, 2017**

CALL TO ORDER

President Handley called the meeting to order at 7:00 p.m.

PLEDGE OF ALLEGIANCE

ROLL CALL

PRESENT: Tom Handley, President
Anjali Lathi, Secretary
Manny Fernandez, Director
Jennifer Toy, Director

ABSENT: Pat Kite, Vice President

STAFF: Paul Eldredge, General Manager
Karen Murphy, District Counsel
Sami Ghossain, Technical Services Manager
James Schofield, Collection Services Manager
Pamela Arends-King, Business Services Manager/CFO
Robert Simonich, Fabrication, Maintenance, and Construction Manager
Tim Grillo, Research and Support Team Coach
Regina McEvoy, Executive Assistant to the General Manager/Board Clerk

GUEST: Alice Johnson, League of Women Voters

APPROVAL OF THE MINUTES OF THE MEETING OF APRIL 10, 2017

It was moved by Secretary Lathi, seconded by Director Fernandez, to approve the Minutes of the Meeting of April 10, 2017. Motion carried with the following vote:

AYES: Fernandez, Handley, Lathi, Toy
NOES: None
ABSENT: Kite
ABSTAIN: None

MONTHLY OPERATIONS REPORT FOR MARCH 2017

This item was reviewed by the Legal/Community Affairs and Budget & Finance Committees.

General Manager Eldredge reported the following:

- Odor Complaints: There were five odor complaints received by the Plant in March 2017. Details regarding the complaints were included in the Board meeting packet.

- The Cogen system produced 76% of power consumed for the month of March 2017.

Business Services Manager/CFO Arends- King reported the following:

- Revenues:
 - The District received \$1,660,000 in capacity fees during March 2017 including:
 - \$312,000 from 24 Hour Fitness at New Park Mall
 - \$70,000 from William Lyons Homes
 - \$67,000 from Casa Bella Homes
 - \$226,000 City Ventures Sugar Mill
- Expenses:
 - Expenses for all Work Groups were at or below budget.

General Manager Eldredge stated Monthly Operations Reports for each work group were included in the Board meeting packet.

WRITTEN COMMUNICATIONS

There were no written communications.

ORAL COMMUNICATIONS

There were no oral communications.

CONSIDER APPROVAL OF AGREEMENT FOR AUDITING SERVICES WITH LANCE SOLL & LUNGHARD LLP.

Business Services Manager/CFO Arends-King stated staff issued a Request for Proposal (RFP) for auditing services, and received responses from nine Certified Public Accounting firms. Following a thorough evaluation in consultation with the Audit Committee, Lance Soll & Lunghard LLP (LSL) was determined to be the best selection of the proposals received. Staff recommended the Board award the professional services contract for annual auditing services to Lance Soll & Lunghard LLP for fiscal years 2016-17 through 2018-19 with the option of providing auditing services for each of the two subsequent fiscal years.

It was moved by Secretary Lathi, seconded by Director Toy, to Award the Professional Services Contract for Annual Auditing Services to Lance Soll & Lunghard LLP, for Fiscal Years 2016-17 through 2018-19 with the Option of Providing Auditing Services for Each of the Two Subsequent Fiscal Years. Motion carried with the following vote:

AYES: Fernandez, Handley, Lathi, Toy
 NOES: None
 ABSENT: Kite
 ABSTAIN: None

AWARD THE CONTRACT FOR THE CLEANING OF PRIMARY DIGESTER NO. 3 AND SECONDARY DIGESTER NO. 2 TO SYNAGRO

This item was reviewed by the Engineering and Information Technology Committee. Research and Support Team Coach Grillo stated the District has six primary and two secondary digesters located at the Plant that require periodic cleaning to remove accumulated debris. Primary Digester No. 3 was last cleaned in 2010, and Secondary Digester No. 2 was last cleaned in 2008. The project will prepare Primary Digester No. 3 for the upcoming Rehabilitation Project to be performed by the Capital Improvements Projects Team. The contractor will have 60 days to complete the project from Notice to Proceed, and the estimated completion is July 2017. Synagro was determined to be the lowest, responsive, and responsible bidder for the project. Staff recommended the Board award the cleaning contract for Primary Digester No. 3 and Secondary Digester No. 2 to Synagro in the amount of \$128,950.

It was moved by Director Fernandez, seconded by Secretary Lathi, to Award the Cleaning Contract for Primary Digester No. 3 and Secondary Digester No. 2 to Synagro in the amount of \$128,950. Motion carried with the following vote:

AYES: Fernandez, Handley, Lathi, Toy
NOES: None
ABSENT: Kite
ABSTAIN: None

CONSIDER A RESOLUTION TO ACCEPT A SANITARY SEWER EASEMENT FOR TRACT 8028 – CASA BELLA, LOCATED ON THORNTON AVENUE BETWEEN CHERRY STREET AND NEWARK BOULEVARD IN THE CITY OF NEWARK

This item was reviewed by the Legal/Community Affairs Committee. Technical Services Manager Ghossain stated Casa Bella Homes, LLC will construct 14 townhome units for Tract 8028, at 6249 Thornton Avenue, in the City of Newark. Sanitary sewer service to the residential development will be provided by new 8-inch mains in the development's two shared driveways, and will be connected to the existing 10-inch main in Thornton Avenue. Casa Bella Homes, LLC has constructed the new sewer mains and granted the District a sanitary sewer easement to provide for access, maintenance, and service of the new sewer mains in the common private roadways of the development. Staff recommended the Board consider a resolution to accept a sanitary sewer easement for Tract 8028 – Casa Bella, located on Thornton Avenue between Cherry Street and Newark Boulevard in the City of Newark.

It was moved by Secretary Lathi, seconded by Director Toy, to Adopt Resolution No. 2807, to Accept a Sanitary Sewer Easement for Tract 8028 – Casa Bella, Located on Thornton Avenue Between Cherry Street and Newark Boulevard in the City of Newark, California. Motion carried with the following vote:

AYES: Fernandez, Handley, Lathi, Toy
NOES: None
ABSENT: Kite
ABSTAIN: None

CONSIDER A RESOLUTION TO ACCEPT A SANITARY SEWER EASEMENT FOR TRACT 7938 – ORACLE COMMON, LOCATED ON EGGERS DRIVE NORTH OF FREMONT BOULEVARD IN THE CITY OF FREMONT

This item was reviewed by the Legal/Community Affairs Committee. Technical Services Manager Ghossain stated Carmel 9, Inc. will construct eight townhome units for Tract 7938, at 3803 Eggers Drive in the City of Fremont. Sanitary sewer service to the residential development will be provided by a new 8-inch main in Oracle Common which will be connected to the existing 12-inch main in Eggers Drive. The roadway of the development has been designated as a private street. Carmel 9, Inc. has constructed the sewer main and granted the District a sanitary sewer easement to provide for access, maintenance, and service of the new main in the private roadway. Staff recommended the Board consider a resolution to accept a sanitary sewer easement for Tract 7938 – Oracle Common, located on Eggers Drive north of Fremont Boulevard in the City of Fremont.

It was moved by Secretary Lathi, seconded by Director Fernandez, to Adopt Resolution No. 2808 to Accept a Sanitary Sewer Easement for Tract 7938 – Oracle Common Located on Eggers Drive North of Fremont Boulevard in the City of Fremont, California. Motion carried with the following vote:

AYES: Fernandez, Handley, Lathi, Toy
NOES: None
ABSENT: Kite
ABSTAIN: None

INFORMATION ITEMS:

Check Register

All questions were answered to the Board's satisfaction.

COMMITTEE MEETING REPORTS:

The Budget & Finance Committee, Legal/Community Affairs, and Engineering and Information Technology Committees met.

General Manager Eldredge stated the Ad Hoc Subcommittee for Communications Strategy will no longer need to meet. The Board agreed that the subcommittee should be removed from the Committee Meeting Reports section of the Board meeting agenda.

GENERAL MANAGER'S REPORT:

General Manager Eldredge reported the following:

- The General Manager's Six Month Check-in Board Workshop will be held at 5:30 p.m. on Tuesday, April 25, 2017.
- General Manager Eldredge will provide a District update presentation at the Newark City Council meeting at 7:30 p.m. on April 27, 2017.
- The District's Certificates of Merit Award Ceremony will be held in the Boardroom at 3:00 p.m. on May 4, 2017.

OTHER BUSINESS

There was no other business.

ADJOURNMENT:

The meeting was adjourned at 7:19 p.m. to the General Manager's 6-month Check-in Board Workshop in the Alvarado Conference Room on Tuesday, April 25, 2017, at 5:30 p.m.

The Board will then adjourn to the next Regular Board Meeting in the Boardroom on Monday, May 8, 2017, at 7:00 p.m.

SUBMITTED:

ATTEST:

REGINA McEVOY
BOARD CLERK

ANJALI LATHI
SECRETARY

APPROVED:

TOM HANDLEY
PRESIDENT

Adopted this 8th day of May, 2017

**MINUTES OF THE SPECIAL MEETING OF THE
BOARD OF DIRECTORS OF
UNION SANITARY DISTRICT
April 25, 2017**

CALL TO ORDER

President Handley called the special meeting to order at 5:35 p.m.

ROLL CALL

PRESENT: Tom Handley, President
Pat Kite, Vice President
Anjali Lathi, Secretary
Manny Fernandez, Director
Jennifer Toy, Director

STAFF: Paul Eldredge, General Manager/District Engineer

PUBLIC COMMENT

There was no public comment.

BOARD WORKSHOP

General Manager Eldredge provided an overview of District activities covering the past six months.

ADJOURNMENT:

The special meeting was adjourned at approximately 7:30 p.m. to the next Regular Board Meeting in the Boardroom on Monday, May 8, 2017, at 7:00 p.m.

SUBMITTED:

ATTEST:

REGINA McEVOY
BOARD CLERK

ANJALI LATHI
SECRETARY

APPROVED:

TOM HANDLEY
PRESIDENT

Adopted this 8th day of May, 2017



Directors
 Manny Fernandez
 Tom Handley
 Pat Kite
 Anjali Lathi
 Jennifer Toy

Officers
 Paul R. Eldredge
*General Manager/
 District Engineer*

Karen W. Murphy
Attorney

DATE: May 2, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer

SUBJECT: Agenda Item No. 9 - Meeting of May 8, 2017
Select Board Members to Represent Union Sanitary District on External Committees for Fiscal Year 18

Recommendation

Select Board Members to serve the FY18 term as USD representatives on the Alameda County Water District Finance Authority (ACWDFA), East Bay Dischargers Authority (EBDA) Commission, Alameda County Chapter of California Special District Association (ACSDA), and the Southern Alameda County Geographic Information System (SACGIS) Joint Powers Authority.

Background

Policy No. 3070 calls for the Board to select representatives and alternates for four External Committees no later than the first meeting in May to enable representatives to be seated for the first meeting of the new committee or commission.

Currently, the representatives and alternates for the external committees are:

Organization	Representative	Alternate
ACWDFA	Anjali Lathi	Pat Kite
EBDA Commission	Jennifer Toy	Tom Handley
ACSDA	Pat Kite	Manny Fernandez
SACGIS	Manny Fernandez	Anjali Lathi

Pursuant to the Policy, members completed an external committee interest form and indicated the external committees they wished to serve on in order of preference.

Below is a table showing the preferences indicated by the Board with 1 being the committee in which they are most interested in serving and 4 being the committee in which they are least interested in serving:

Board Member	ACWDFA	EBDA	ACSDA	SACGIS
Manny Fernandez	1	2	3	4
Tom Handley	2		3	1
Pat Kite	2	4	1	3
Anjali Lathi	1			2
Jennifer Toy	4	1	3	2

Attachment: Board Policy 3070, Boardmember Officers and Committee Membership

Effective: 03/14/16	Boardmember Officers and Committee Membership	Policy Number 3070 Page 1 of 3
------------------------	--	---------------------------------------

Policy

Selection of Board Officers will be held annually at the first regular meeting in the month of July of each year. Internal Board committee memberships shall be established no later than the second regularly scheduled meeting in July of each year, following the selection of the Board Officers. External commissions/committees representatives shall be established no later than the first regularly scheduled meeting in May of each year.

Purpose

To provide a written record of the procedure approved by the Board for electing its Officers and establishing its committee memberships.

Procedure

Board Officers

1. The Officers are President, Vice President, and Secretary and the term of office shall be for one year.
2. The President shall preside over the meetings of the Board of Directors and be responsible for the following:
 - a. maintaining order and following the published agenda
 - b. ensuring Boardmembers are allowed to participate in discussions
 - c. allowing the public to speak on agenda items
 - d. facilitating dialog among the public, staff, and Boardmembers
 - e. appointment of members of the Board of Directors to Committee assignments
 - f. signing resolutions, ordinances, and construction contracts on behalf of the District
 - g. representing the Board of Directors on issues or at events as designated by the full Board

The Vice President shall fulfill the duties of the President when the President is absent or otherwise unavailable.

The Secretary shall ensure the recording of the minutes of the Board of Directors meetings and sign the adopted Minutes, shall sign all Resolutions and Ordinances passed by the District, and shall serve as Vice President when the Vice President is absent or otherwise unavailable. If the President and Vice President are both absent, and a quorum is present, the Secretary shall preside over the meetings of the Board of Directors as the Board President.

3. At the first regularly scheduled Board meeting in July, or as soon thereafter as the item can be agendaized at a regular Board meeting, the Board shall appoint its Board Officers. During election years, the newly elected Boardmembers shall be sworn in as the first item of business on the agenda followed immediately by the selection of the Board Officers. During non-election years, the selection of the Board Officers shall be considered after the last motion item on the agenda. The Board shall elect the President, Vice-President and Secretary for one year terms. The election or removal of the President, Vice-President or Secretary shall require a majority vote of the Board. The Board may choose to follow a rotation of officers.

The Board officers in office at the beginning of the meeting shall retain their positions until the adjournment of the meeting and the newly selected Board Officers shall assume their duties immediately following this meeting.

Internal Board Committee Memberships

1. Internal committees are: Budget and Finance; Construction; Legal/Community Affairs; Legislative; Personnel; and Audit Committee. There is no fixed schedule for meetings set by this policy and appointments are made by the President, as set forth below. Notwithstanding the above, meetings are noticed and open to the public.
2. Annually, following the election of Board officers, and at the same meeting as the election of the officers, Directors shall be provided a list of the internal committees along with an internal committee interest form. The internal committee interest form shall be completed in order of preference and provided to the General Manager, or designee, no later than 11 calendar days in advance of the next Board meeting.
3. The President is delegated the authority to appoint Directors to the internal committees. The President shall make every effort to rotate committee assignments and ensure a similar number of committee assignments for each Board member. Notice of internal committee membership appointments will be contained in an information item to the Board at the next regularly scheduled meeting following the selection of the Board Officers. The determination of the Board President on committee assignments shall be considered final.
4. Ad Hoc committees are called as needed by a majority vote of the Board of Directors.

External Commissions / Committee Representatives (CCR)

1. External commissions/committees include: the EBDA Commission; the Joint Powers Authority for Geographic Information Systems; the Alameda County Water District Finance Authority (ACWDFA); and the Alameda County Chapter of the California Special Districts Association.

2. Membership on the EBDA Commission shall be a maximum of two consecutive years, with a possible three years in exceptional circumstances if approved by the Board.
3. The Board of Directors will elect the representatives for the External Committees no later than the first regularly scheduled Board meeting in May of each year in order to ensure that the representatives may be seated for the first meeting of the new committee or commission. At the prior meeting, Directors shall be provided a list of the external committees along with an external committee interest form. The external committee interest form shall be completed in order of preference and provided to the General Manager, or designee, no later than 11 calendar days in advance of the meeting. The committee interests shall be compiled in a staff report by the General Manager, or designee, and provided to the Board for consideration. The Board shall elect the CCRs for one year terms or as otherwise decided by the Board majority. The election or removal of CCRs shall require a majority vote of the Board.

Management Responsibility

The General Manager will be responsible for scheduling on the Board agenda, the election or appointment of Board officers and external commissions, pursuant to the schedule shown above. The General Manager, or designee, will provide the following to the new President, with copies to the Board: (1) a list of the last ten years and current committee memberships; (2) a copy of this policy; and (3) a list of internal committee interests. In consultation with the Board President, the General Manager will also be responsible for scheduling on the Board agenda the announcement of committee appointments.

Supersedes Policy Dated: July 2004, September 2005, January 2008, September 2010, October 2013

Approved by: Board of Directors March 14, 2016
Reviewers: General Manager, Board of Directors, District's attorney
Notify Person: General Manager
Review frequency: Every 3 years
Next Review: March 2019



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: May 1, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Sami E. Ghossain, Manager of Technical Services
Rollie Arbolante, Customer Service Team Coach

SUBJECT: Agenda Item No. 10 - Meeting of May 8, 2017
Consider a Resolution to Adopt the 2017 Standard Specifications and Details

Recommendation

Consider a resolution to adopt the 2017 Standard Specifications and Details.

Background

Union Sanitary District's Standard Specifications and Information Bulletin govern the design and construction requirements of sanitary sewer main and lateral installations by private contractors (non-CIP projects). The Specifications were last updated in 2006. A number of revisions to building and plumbing codes, as well as other standards, have occurred since the last revision. Manufacturers of several products specified in the 2006 Standard Specifications have changed material references or, through company acquisitions, are available through different manufacturers. Furthermore, recently adopted procedures and District's experience with certain construction materials and methods are not reflected in the 2006 Standard Specifications. To keep current, the USD Standard Specifications and Information Bulletin required updating.

West Yost Associates were retained in May 2016 to complete this project. A copy of the proposed 2017 Standard Specifications and Details is attached. Some notable changes in the new 2017 Standard Specifications include:

- Risers at the end run of sewers for new main construction are no longer allowed. Risers present maintenance difficulties and manholes are preferred instead.

- New manhole neck length requirement is a maximum of 12 inches (previously 18 inches). The shorter neck lengths will provide for easier ingress and egress.
- Eleven (11) new details:
 - ❖ Zero Lot Line Lateral Connection Detail
 - ❖ Sand/Oil/Water Separator Detail
 - ❖ Clarifier Detail
 - ❖ Grease Trap Detail
 - ❖ Trash Enclosure Detail
 - ❖ Single Family Residential Pump Station Detail
 - ❖ Pool Filter Backwash Sump Detail
 - ❖ Air Gap for Fire Sprinkler Test Detail
 - ❖ Street/Access Road Requirements Detail
 - ❖ Pipe Concrete Cap Detail
 - ❖ Manhole Transition Riser Detail
- New Section 17 – Grease and Oil Collection Systems and Additional Connection Requirements (previously Section 11.11).

Consulting engineers and contractors who have worked on developer projects within the District the past 5 years will be sent notices announcing the new Standard Specifications, which will be effective on July 3, 2017. Plans currently under review will continue to adhere to the current 2006 Standard Specifications while plans submitted on or after July 3rd will adhere to the 2017 Standard Specifications. Electronic copies in PDF format are available on the District's website.

Staff recommends the Board considers a resolution to adopt the 2017 Standard Specifications and Details.

PRE/SEG/RA:ks

Attachments: Resolution
Unsigned 2017 Standard Specifications and Details

RESOLUTION NO. _____

ADOPT THE 2017 STANDARD SPECIFICATIONS AND DETAILS

RESOLVED, by the Board of Directors of the UNION SANITARY DISTRICT that it hereby approves and adopts the 2017 Standard Specifications and Details, effective July 3, 2017, on file with the Executive Assistant to the General Manager and Board Clerk, which shall replace the previous edition of the Standard Specifications and Information Bulletin,

FURTHER RESOLVED, that the Board of Directors of the UNION SANITARY DISTRICT hereby authorizes the District Engineer to make future minor modifications to these specifications and details, as necessary.

On motion duly made and seconded, this resolution was adopted by the following vote on May 8, 2017.

AYES:

NOES:

ABSENT:

ABSTAIN:

TOM HANDLEY
President, Board of Directors
Union Sanitary District

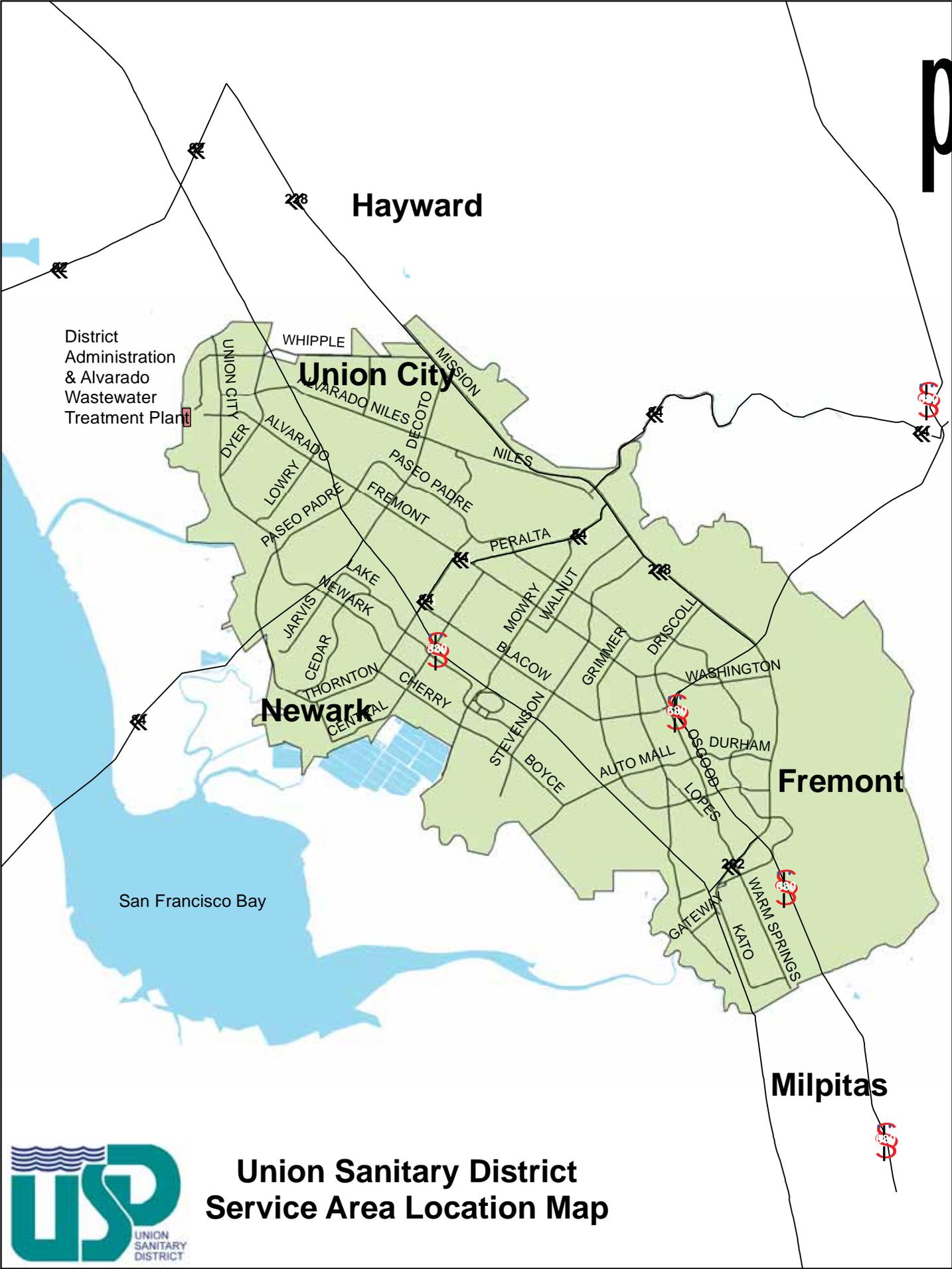
ATTEST:

ANJALI LATHI
Secretary, Board of Directors
Union Sanitary District

STANDARD SPECIFICATIONS AND DETAILS



UNION SANITARY DISTRICT
2017



District
Administration
& Alvarado
Wastewater
Treatment Plant

Union City

Hayward

Newark

Fremont

Milpitas

San Francisco Bay



**Union Sanitary District
Service Area Location Map**

(THIS PAGE LEFT BLANK INTENTIONALLY)

STANDARD SPECIFICATIONS AND DETAILS
Table of Contents

SECTION 1 - INTRODUCTION 1

 1.01 INTRODUCTION..... 1

SECTION 2 - DEFINITIONS AND TERMS 2

 2.01 DEFINITIONS AND TERMS 2

 2.02 ABBREVIATIONS 3

 2.03 PIPE TYPES 4

SECTION 3 - SCOPE OF WORK 5

 3.01 SCOPE 5

 3.02 GUARANTEE OF WORK..... 5

 3.03 INDEMNIFICATION 5

 3.04 SAFETY 5

SECTION 4 - SITE PREPARATION 6

 4.01 SITE PREPARATION 6

 4.02 ACCEPTANCE OF GROUNDWATER FROM CLEANUP PROJECTS 6

SECTION 5 - SEWER PIPE LINES 7

 5.01 SEWER CONSTRUCTION MATERIALS 7

 5.02 PIPE MATERIALS..... 7

 5.03 PIPE COUPLINGS 11

 5.04 SADDLE 11

 5.05 EMBEDMENT 11

 5.06 STAINLESS STEEL BANDS..... 11

SECTION 6 - PORTLAND CEMENT CONCRETE AND MORTAR 12

 6.01 CONCRETE 12

 6.02 MORTAR AND GROUT 12

SECTION 7 - SEWER PIPE AND STRUCTURE INSTALLATION..... 14

 7.01 SEWER PIPE LAYING..... 14

 7.02 SPLICE..... 16

 7.03 MANHOLE..... 17

 7.04 RISER (MAIN SEWER ONLY)..... 19

 7.05 CLEANOUT TO GRADE (BUILDING SEWER ONLY) 20

 7.06 TWO-WAY CLEANOUT TO GRADE (BUILDING SEWER ONLY) 20

 7.07 TEST WYE (BUILDING SEWER ONLY) 20

 7.08 SEWER THROUGH CASING 20

 7.09 REHABILITATION OF BUILDING SEWERS USING PIPE-BURSTING 21

SECTION 8 - EXCAVATION..... 24

 8.01 DEFINITION..... 24

 8.02 OPEN TRENCHING..... 24

SECTION 9 - TRENCH BACKFILLING 27

 9.01 TRENCH BACKFILLING..... 27

 9.02 PIPE FOUNDATION - (IF REQUIRED BY ENGINEER)..... 27

 9.03 GEOTEXTILE FILTER FABRIC..... 27

 9.04 PIPE EMBEDMENT 28

 9.05 TRENCH BACKFILL MATERIAL 30

SECTION 10 - PAVING REPLACEMENT 32

 10.01 DEFINITION..... 32

 10.02 PAVING IN PUBLIC RIGHTS-OF-WAY OR PUBLIC UTILITY EASEMENT..... 32

 10.03 PAVING IN UNION SANITARY DISTRICT EASEMENTS AND IN PRIVATE PROPERTY..... 32

SECTION 11 - MISCELLANEOUS REQUIREMENTS 33

 11.01 INSPECTION 33

 11.02 ALTERATIONS 33

 11.03 DEFECTIVE WORK AND/OR MATERIALS 33

 11.04 MANHOLE PROTECTION..... 33

 11.05 USE OF EXISTING BUILDING SEWERS 33

 11.06 BUILDING SEWER MARKING 34

 11.07 MANHOLE MARKING..... 34

 11.08 REPAIR OF DAMAGED SEWERS AND OTHER UTILITIES..... 34

 11.09 CONNECTION OR ADJUSTMENTS TO EXISTING MAIN SEWERS OR APPURTENANCES .. 35

 11.10 ABANDONMENTS..... 35

SECTION 12 - TESTING 37

 12.01 TESTING MAIN SEWERS..... 37

 12.02 TESTING BUILDING SEWERS..... 39

 12.03 TESTING PRESSURE SEWERS..... 40

 12.04 MANHOLE VACUUM TESTING 40

SECTION 13 - TELEVISION INSPECTION..... 42

 13.01 INSPECTION OF MAIN SEWERS..... 42

 13.02 WHEN TESTED 42

SECTION 14 - CLEANING..... 43

 14.01 CLEANING..... 43

 14.02 DISCHARGE OF CLEANING WATER 43

SECTION 15 - SITE CLEANUP AND RESTORATION..... 44

 15.01 SITE CLEANUP AND RESTORATION 44

SECTION 16 - REQUIREMENTS FOR ISSUANCE OF SEWER CONSTRUCTION PERMITS	45
16.01 PROPERTY TO BE SERVED BY USD	45
16.02 INSURANCE REQUIREMENTS	45
16.03 LICENSE REQUIREMENTS	45
16.04 BOND/DEPOSIT REQUIREMENTS	45
16.05 FEES AND CHARGES	46
16.06 SUBMISSION OF DATA FOR MAIN SEWERS.....	47
16.07 SUBMISSION OF DATA FOR BUILDING SEWERS.....	48
16.08 ENCROACHMENT AGREEMENT.....	50
16.09 MINIMUM REQUIREMENTS FOR DIGITAL SUBMITTAL.....	50
SECTION 17 - GREASE AND OIL COLLECTION SYSTEMS AND ADDITIONAL CONNECTION REQUIREMENTS	54
17.01 GENERAL	54
17.02 GREASE INTERCEPTORS	54
17.03 GREASE TRAPS	54
17.04 CONNECTIONS.....	54
17.05 DISHWASHERS.....	54
17.06 GARBAGE DISPOSALS	55
17.07 CAR WASH AND INDUSTRIAL VEHICLE CLEANING FACILITIES	55
17.08 TRASH ENCLOSURES	55
17.09 TRASH COMPACTORS	55
17.10 PARKING STRUCTURES AND LOTS:	55
17.11 VEHICLE EQUIPMENT REPAIR AND MAINTENANCE SHOPS	55
17.12 FUELING STATIONS (RETAIL, WHOLESALE AND PRIVATE).....	55
17.13 TRENCH DRAINS:.....	55
17.14 SWIMMING POOLS, SPAS AND FOUNTAINS	56
17.15 OUTSIDE UTILITY EQUIPMENT AREAS	56
17.16 ELEVATOR AND ESCALATOR SUMPS.....	56
17.17 CLAY, CERAMIC, GRANITE, MARBLE, GLASS GRINDING AND STONE CUTTING FACILITIES....	56
SECTION 18 - MISCELLANEOUS MAIN SEWER AND BUILDING SEWER REQUIREMENTS.....	57
18.01 REPAIR OR RELOCATION OF EXISTING MAIN SEWER OR APPURTENANCES	57
18.02 CONNECTION OR ADJUSTMENTS TO EXISTING MAIN SEWERS OR APPURTENANCES ..	57
18.03 REPAIR, RELOCATION OF OR CONNECTION TO EXISTING BUILDING SEWERS.....	58
18.04 USE OF EXISTING BUILDING SEWERS	58
18.05 ABANDONMENTS	58
18.06 NUMBER OF BUILDING SEWERS REQUIRED.....	58

SECTION 19 - REQUIREMENTS PRIOR TO START OF CONSTRUCTION	59
19.01 PERMIT	59
19.02 STAKING AND CUT SHEETS	59
19.03 INSPECTION	60
SECTION 20 - APPROVAL AND ACCEPTANCE OF CONSTRUCTION	61
20.01 MAIN SEWERS	61
20.02 BUILDING SEWERS	61
20.03 PAYMENT	61
SECTION 21 - SPECIFICATIONS AND DETAILS	62
21.01 MATERIALS AND METHODS OF CONSTRUCTION	62
21.02 CONSTRUCTION DETAILS	62
SECTION 22 - DESIGN AND POLICY STANDARDS FOR MAIN SEWERS	63
22.01 PIPE MATERIALS	63
22.02 PIPE MATERIAL CHANGES	63
22.03 SIZE AND SLOPE	63
22.04 ALIGNMENT	63
22.05 CROSS CONNECTION	63
22.06 GRADE	63
22.07 GRADE STAKES	63
22.08 DESIGN DEPTH	64
22.09 MINIMUM PIPE COVER	64
22.10 TRENCH INTERSECTIONS	64
22.11 HORIZONTAL UTILITY CLEARANCE	64
22.12 CROSSING STORM DRAINS	64
22.13 CROSSING WATER MAINS	64
22.14 STRUCTURE LOCATIONS	65
22.15 MAIN LOCATIONS	65
22.16 INVERT ELEVATIONS AT MANHOLES	65
22.17 MAXIMUM DEFLECTION AT MANHOLES	65
22.18 BUILDING SEWER CONNECTION AT MANHOLES	65
22.19 MANHOLE RIM ELEVATION	65
22.20 CONNECTION TO EXISTING MANHOLE	65
22.21 CONNECTIONS BETWEEN MAIN SEWERS	66
22.22 DROP MANHOLES	66
22.23 BOLT-DOWN MANHOLES	66
22.24 EASEMENT WIDTH REQUIREMENTS	66
22.25 EASEMENT PAVING REQUIREMENTS	66
22.26 EASEMENT ACCESS REQUIREMENTS	66

SECTION 23 - DESIGN AND POLICY STANDARDS FOR BUILDING SEWERS	67
23.01 SIZE AND SLOPE	67
23.02 PIPE MATERIALS.....	67
23.03 ALIGNMENT	67
23.04 BUILDING PLUMBING (BUILDING DRAIN) LOCATION	67
23.05 GRADE.....	67
23.06 GRADE STAKES	68
23.07 CURB MARKING	68
23.08 CONNECTION TO EXISTING MAIN SEWER.....	68
23.09 ELEVATION AT CONNECTION TO MAIN SEWER.....	68
23.10 CONNECTION TO EXISTING BUILDING SEWER.....	68
23.11 CONNECTION TO BUILDING DRAIN (PLUMBING KICK-OUT)	69
23.12 CLEARANCES	69
23.13 PARALLEL TO FOOTING.....	69
23.14 CROSSING STORM DRAINS	69
23.15 CROSSING WATER MAINS.....	69
23.16 MINIMUM PIPE COVER	69
23.17 TRENCH INTERSECTIONS	70
23.18 HORIZONTAL UTILITY CLEARANCE	70
23.19 STRUCTURE TYPE AND LOCATION	70
23.20 OVERFLOW DEVICES.....	70
23.21 NUMBER OF BUILDING SEWERS REQUIRED.....	70
23.22 PRIVATE PUMPING STATIONS.....	71
23.23 NEW UTILITIES CROSSING EXISTING SEWER MAINS AND BUILDING SEWERS.....	71
STANDARD DETAILS	73
INDEX	111

(THIS PAGE LEFT BLANK INTENTIONALLY)

SECTION 1 - INTRODUCTION

1.01 INTRODUCTION

The STANDARD SPECIFICATIONS for sanitary sewers shall govern requirements, design and all work in connection with main and building sewer construction within the Union Sanitary District of Alameda County, California. District Information Bulletin, applicable portions of the latest version of the "California Plumbing Code" not in conflict with these Specifications, and all Ordinances of the District shall be considered a part of these Specifications. All plans, profiles, cut sheets, easement documents and specifications shall conform to the Standards established herein.

Special Provisions, specifications addenda, and/or notes on the plans shall be provided when deemed necessary, and shall be considered as part of the specifications for the work.

SECTION 2 - DEFINITIONS AND TERMS

2.01 DEFINITIONS AND TERMS

For the purpose of these specifications, the following words, and abbreviations shall be defined as follows:

ABANDONMENT - The permanent removal of main and/or building sewers from service.

BUILDING PLUMBING (BUILDING DRAIN) - The lowest piping of a gravity drainage system which receives the discharge from waste and other sewer drainage pipes inside the building and conveys it to the building sewer.

BUILDING SEWER - A Building Sewer shall refer to any existing or proposed sewer for private use. It extends from the main sewer to within 30 inches or less of the building or house to be served. It is subject to inspection and approval by the Union Sanitary District and when so approved, becomes the maintenance responsibility of the property owner, per Resolution No. 5, Section 5, dated December 12, 1949. Also referred to as a lateral or house sewer.

CALTRANS - Shall mean State of California, Business and Transportation Agency, Department of Transportation.

CITY - City of Fremont, City of Newark, or City of Union City.

CONTRACTOR - Company or individual authorized by the Union Sanitary District to perform work as called for by issuance of a sewer construction permit.

DEFLECTION - The changing in alignment or grade by movement of a pipe or joint. In the case of Flexible Pipe, it also means the outward movement of the sides of the pipe and the inward movement of the top and bottom of the pipe.

DEFLECTOMETER - Instrument used to determine the acceptability of deflections within Flexible Pipe. Also referred to as a mandrel.

DEVELOPER - Any public agency, private company, or individual who proposes the development of property which requires construction of sanitary sewers.

DISTRICT - Shall mean Union Sanitary District of Alameda County, California.

ENCROACHMENT AGREEMENT – An agreement between USD and a contractor that identifies the location and type of work allowed to be performed on USD Manholes and sanitary sewer mains by contractor.

ENGINEER - District Engineer of the Union Sanitary District or his/her authorized representative(s).

FIXTURE UNIT - The unit equivalent of plumbing fixtures as tabulated in the latest version of the California Plumbing Code.

FLEXIBLE PIPE - Sewer pipe made of Acrylonitrile-Butadiene-Styrene (ABS), Poly Vinyl Chloride (PVC), or High Density Polyethylene (HDPE).

HOUSE SEWER – See Building Sewer.

LAYERING – CADD file layer names.

LATERAL – See Building Sewer.

MANDREL – See Deflectometer.

MAIN SEWER - A main sewer shall refer to any existing or proposed sewer dedicated to public use within the public right of way or easement. It is subject to inspection and approval by the Union Sanitary District and when accepted, becomes the maintenance responsibility of the Union Sanitary District, per Resolution No. 5, Section 5, dated December 12, 1949.

PIPE (SEWER) EMBEDMENT - Earth or other special material used to replace material removed from trenches during construction from the sewer subgrade to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the pipe barrel.

PLANS - Drawings approved by the Engineer for construction in the Union Sanitary District.

PRIVATE SEWER – The portion of the sewer main, including manholes, or building sewer located within private property, unless dedicated to the public with an easement. Maintenance responsibility of private sewers is with the owner of the private property.

RELATIVE COMPACTION - Refers to the Compaction Test No. 216 or 231 of the State of California, Caltrans, Standard Specifications.

RIGID PIPE - Sewer pipe made of Vitrified Clay (VCP) or Ductile Iron (DIP)

SEWER SUBGRADE - Is defined as being six (6) inches below the exterior bottom of the pipe.

SPECIFICATIONS - Union Sanitary District's "Standard Specifications and Information Bulletin" available at the District Office.

STANDARD DETAILS - Detailed standard drawings of approved construction in the Union Sanitary District.

TRENCH (SEWER) BACKFILL - Earth or other special material used to replace material removed from trenches during construction above the pipe embedment.

UTILITY – Refers to cable TV, water, storm, fiber optics, electrical, gas, recycled water, telecommunications, nitrogen and other public or private utility lines.

2.02 ABBREVIATIONS

ANSI – American National Standards Institute

ASTM – American Society for Testing Materials

AWWA – American Water Works Association

CADD – Computer Aided Drafting and Design

CBR – California Bearing Ratio

CPC – California Plumbing Code

DWG – Standard AutoCAD drawing file format

DXF – Standard CADD drawing file exchange format

GIS – Geographic Information System

NAD83 – North American Datum 1983 used for horizontal ground control

NAVD88 – North American Vertical Datum 1988 used for vertical ground control

NGVD29 - National Geodetic Vertical Datum 1929 used for vertical ground control

UPC – Uniform Plumbing Code

2.03 PIPE TYPES

ABS – Acrylonitrile-Butadiene-Styrene Pipe

DIP – Ductile Iron Pipe

PVC – Poly Vinyl Chloride Pipe

RCP – Reinforced Concrete Pipe

VCP – Vitrified Clay Pipe

HDPE – High Density Polyethylene Pipe

SECTION 3 - SCOPE OF WORK

3.01 SCOPE

The work shall include the furnishing of all materials, labor, tools, implements and equipment necessary to construct the sewers with all appurtenances, complete and ready to operate. All construction shall be done in strict accordance with the approved Plans and the provisions of these Specifications unless otherwise authorized by the Engineer.

3.02 GUARANTEE OF WORK

All work performed and materials used shall be guaranteed for a period of one (1) year after acceptance of the work by the District. A Surety Bond may be required to be filed with the District.

3.03 INDEMNIFICATION

Contractor shall defend, indemnify and hold harmless the District, and each of its directors, officers, employees, agents, and, if applicable, any public entities or private property owners on whose property the work is being performed from and against any and all liability, including but not limited to, penalties, fines, costs, losses, damages, expenses, causes of action, claims or judgments, including attorney's fees and expert witness fees (collectively "Claims") resulting from:

- (a) any alleged or actual infringement or violation of any patent or patent right arising in connection with the performance of the Work and anything done there under;
- (b) any injury to or death sustained by any person (including Contractor's own employees) or damage to property of any kind, which injury, death or damage arises from or is in any way connected with the Contractor's performance of the Work;
- (c) any breach by Contractor of any of the obligations and covenants, and any other terms and conditions of the permit; or
- (d) any violation by Contractor or its subcontractors of one or more occupational safety and health standards, regulations, or orders, where the Contractor or its subcontractor is found to be the "Causing Employer" as defined by Title 8, CCR Section 336.10. Contractor or its subcontractor shall have the right to appeal such citations at their sole expense. The District shall provide reasonable cooperation to Contractor in its appeal of any Citations. In the event Contractor or subcontractor either fails to timely appeal the Citations and/or Citations are upheld after an appeal hearing, Contractor shall promptly pay the fines that were assessed against the District.

Contractor's aforesaid obligation of indemnity and defense shall not extend to that portion of the Claims that is caused by the sole negligence or willful misconduct of the District its directors, officers, employees, agents, or, if applicable, any public entities or private property owners on whose property the work is being performed. These obligations of defense and indemnification shall extend to Claims asserted after the completion of the Work.

3.04 SAFETY

The Contractor shall be solely and completely responsible for conditions of the job site, including the safety of all persons (including employees) and property during the performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to Cal-OSHA and all other applicable federal, state, county, and local laws, ordinances, codes, and regulations. Job site safety shall include confined space entry, traffic control, protection of public, above ground and below ground utility hazards and all incidental hazards. Where any of these are in conflict, the more stringent requirement will be followed. The Contractor's failure to thoroughly familiarize himself/herself with the aforementioned safety provisions shall not relieve him/her from compliance with the obligations and penalties set forth therein.

SECTION 4 - SITE PREPARATION

4.01 SITE PREPARATION

Site preparation shall consist of removing, and properly disposing of, all objectionable material such as fences, trees, brush, debris, etc., from the construction site which would interfere with the prosecution of the work.

On District contract jobs, approval must first be obtained from the Engineer to remove items that cannot practicably be replaced in kind, such as trees and limbs.

4.02 ACCEPTANCE OF GROUNDWATER FROM CLEANUP PROJECTS

Water generated from the cleanup of spills, leaking underground storage tanks, monitoring wells or other similar sources shall not be discharged through direct or indirect connections to a community sewer unless a discharge permit is issued by the District. The District may approve the discharge of such water at its discretion only when no reasonable alternative method of disposal is available. If a discharge permit is granted for the discharge of such water into the community sewer, the user shall pay the applicable charges and fees and meet such other conditions as required by the District. For the purpose of permits and fees, the discharge shall be considered a Class I discharge subject to permit requirements and discharge limitations or prohibitions set by USD Environmental Compliance. The District retains the right to terminate the discharge at any time for cause. Each discharge permit must be reviewed on an annual basis.

SECTION 5 - SEWER PIPE LINES

5.01 SEWER CONSTRUCTION MATERIALS

All sewer construction materials proposed to be used shall be new materials approved by the Engineer, prior to start of construction.

Where material specification numbers are used herein, they shall refer to the latest revision thereof.

For the purpose of these specifications, all pipe materials are classified as either "rigid" or "flexible."

5.02 PIPE MATERIALS

A. RIGID PIPE AND FITTINGS

Rigid pipe and fittings may be used only under prior approval of the Engineer to accommodate special circumstances. Rigid pipe, fittings, and joint materials specified herein consist of Vitrified Clay Pipe (VCP) and Ductile Iron Pipe (DIP). All materials incidental to rigid pipe installations shall be supplied by the Pipe Manufacturer. All rigid pipe required in odd lengths shall be cut using a proper cutting tool and guide that insures true line cut on planes perpendicular to the pipe axis. No bevel cuts for pipeline alignment will be permitted.

1. VITRIFIED CLAY PIPE (VCP) AND FITTINGS

Vitrified clay pipe and fittings shall conform to ASTM Designation C-700. Mechanical type joints having resilient properties conforming to ASTM Designation C-425 shall be used and installed. The pipe shall be tested during manufacture in accordance with ASTM Designation C-301. The use of VCP shall only be allowed with special approval from the District Engineer.

2. DUCTILE IRON PIPE (DIP) AND FITTINGS

Ductile iron pipe and fittings shall conform to ANSI/AWWA C151/A21.51 minimum pressure Class 350 for pipe 12 inches and smaller in diameter and minimum pressure Class 250 for pipe greater than 12 inches in diameter.

- a. Bell and spigot joint assemblies shall conform to the requirements of Federal Specification WW-P-421c, Section 3.1.2 as it applies to Type II, Grade B or C pipe.
- b. Standardized mechanical joint assemblies shall conform to the applicable requirements of ANSI/AWWA Standards for the pipe specified and ANSI/AWWA C111/A21.11.
- c. Any ductile iron pipe used in gravity sewer application or in pressure sewer applications where air and gasses can accumulate shall be lined. Lining shall be with high density polyethylene, ceramic epoxy, or glass as specified herein.
 - 1) HDPE lining shall be factory applied, certified and tested for absence of holidays and pinholes. Lining shall be minimum 40 mils thick. Lining shall be light colored for improved video inspection purposes.
 - 2) Ceramic epoxy lining shall be Protecto 401 as manufactured by Induron Coatings or equal. Ceramic epoxy shall be applied 40 mil thick.
 - 3) Glass lining shall be 2 dual layer system such as Fast Fabricators MEH-32, Vitco SG-14 or equal. Glass lining shall be a minimum 10 mils thick.
 - 4) Linings shall be applied under pipe factory supervision in accordance with liner manufacturers' published requirements. Liners shall be spark tested at

voltage of 60 V per mil thickness. Pinholes and holidays will be cause for pipe rejection.

- d. DIP shall be wrapped in polyethylene encasement per manufacturer's recommendation and conforming to ANSI/AWWA C105. Encasement shall be securely taped and extended/overlapped by a minimum of 12-inches.

B. FLEXIBLE PIPE AND FITTINGS

Flexible pipe, fittings and joint materials specified herein consist of Acrylonitrile-Butadiene-Styrene (ABS) and Polyvinyl Chloride (PVC). All materials incidental to flexible pipe installations such as gaskets, joint lubricants, cements, etc. shall be supplied by the pipe manufacturer. All flexible pipe required in odd lengths shall be cut using a proper cutting tool and guide that insures true line cut on planes perpendicular to the pipe axis. No bevel cuts for pipeline alignment adjustments will be permitted. All flexible pipe for new construction shall be solid wall pipe.

1. ABS SOLID PIPE

ABS Schedule 40 pipe shall only be used for building sewers. All ABS pipe and fittings shall be solid wall pipe manufactured in accordance with ASTM Designation D-2661, and tested in conformance with the requirements of paragraphs under Section 7 and 10 of ASTM D-2680, for SDR 26 pipe.

Cement used for non-gasketed ABS pipe shall conform to ASTM Designation D-2235. Jointing of wet pipe is not allowed. No primer shall be used in the pipe installation. Jointing shall be accomplished by applying a coating of cement to the inside of the socket, and to the outside of the spigot end of the pipe to be joined in sufficient quantity that when the spigot is fully inserted into a socket, a bead of excess cement will form around the entire circumference of the outside juncture of said spigot and socket. Excess cement shall then be removed.

2. PVC SOLID WALL PIPE

All PVC solid wall pipe and fittings shall be in accordance with the requirements for SDR 26 sewer pipe as stated in ASTM Designation D-3034, minimum wall thickness of SDR 26, ASTM Designation F-679 Type PS-115, or the requirements for PVC pressure pipe. Pipe joints and fittings shall be factory assembled, integral wall bell and spigot configuration, compatible with the pipe.

Gasketed PVC Pipe shall have a solid cross section rubber ring gasket. The gasket shall be securely attached to the pipe to prevent displacement of the gasket when installed in the field. All rubber ring gaskets shall be in accordance with ASTM Designation F-477. Lubricant used for field assembly of gasketed PVC Pipe shall have no detrimental effect on the gasket, joint, fitting or pipe and shall be as recommended by the manufacturer.

Cement used for non-gasketed PVC Pipe shall conform to ASTM Designation D 2564. Jointing of wet pipe is not allowed. Jointing of pipe shall be accomplished by applying a coating of cement to the inside of the bell and the outside of the spigot. The cement shall be applied in sufficient quantity to produce a bead of cement around the entire circumference of the pipe joint. Excess cement shall then be removed.

3. PVC PRESSURE PIPE

Where PVC pressure pipe is required, PVC pressure pipe shall conform to the requirements of AWWA C-900-16 minimum Class 150 for Pressure Pipe manufactured in sizes from four (4) inches to thirty-six (36) inches in diameter. PVC pressure pipe

shall be furnished in Ductile Iron Pipe equivalent outside diameters with rubber gaskets, separate couplings, or approved equal. Thrust restraint shall be provided at valves and changes of direction for pressure flow applications.

4. HDPE PIPE

All HDPE pipe shall be solid wall, butt-fused pipe conforming to AWWA C906 and ASTM D-3035 and shall meet the minimum cell classification of 345434 E for gravity sewers or 345434 C for pressure sewers as described in ASTM D3350. HDPE pipe shall meet the requirements of TYPE III, Class B, category 5 grade P34 material as described in ASTM D-1248. The pipe may contain no more than 10 percent reworked resin gathered from within the manufacturer's own plant from resin meeting these specifications. Pipe color for gravity sewer application shall be natural gray. Pipe color for pressure sewer applications may be natural gray or black. Wall thickness shall be no less than DR 21.

The pipe shall be marked at 5-foot intervals or less with a coded number that identifies the manufacturer, SDR, size, material, machine, date and shift on which the pipe was extruded.

Any pipe, which has cuts or abrasions in the pipe wall exceeding 10 percent of the wall thickness, shall be removed from the site.

The pipe shall be joined using the butt fusion method in strict accordance with the pipe manufacturer's recommendations and ASTM F2620. The fusion equipment shall be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, fusion temperature, alignment and fusion pressure.

Pipes 4-inches to 12-inches in diameter shall be de-beaded. Pipes larger than 12 inches in diameter are not required to be de-beaded. De-beading method shall be pre-approved by the District.

Fittings shall conform to ASTM D-3261. Electro-fusion fitting may be used provided approval is granted in advance by the Engineer.

5. STORAGE

- a. Pipe shall be stored if possible at the job site in unit packages provided by the manufacturer. Caution shall be exercised to avoid compression, damage or deformation to bell ends of the pipe and barrel.
- b. When unit packages of flexible pipe are stacked, insure that weight or upper units do not cause deformation to pipe in lower units.
- c. Flexible pipe unit packages shall be supported by racks or dunnage to prevent damage to the bottom during storage. Supports shall be spaced to prevent pipe bending.
- d. When long-term storage with exposure to direct sunlight is unavoidable, flexible pipe shall be covered with an opaque material while permitting adequate air circulation above and around the pipe as required to prevent excessive heat accumulation.
- e. Flexible pipe shall not be stored close to heat sources or hot objects such as heaters, boilers, steam lines, engine exhaust, etc.
- f. Gaskets, if required, shall be protected from excessive exposure to heat.

6. DEFLECTION

The inside diameter of an installed section of flexible pipe shall not be allowed to deflect more than five percent (5%) of the base inside diameter (as defined in ASTM D3034) following 30 days after installation. Deflection testing conducted during daily installation and any time prior to 30 days after installation, shall be based on an allowable deflection of 3-1/3 percent of the base inside diameter. The testing mandrel sizes for PVC SDR 26 pipe are shown in the following table. For flexible pipe materials other than PVC SDR 26, the mandrel diameter shall be calculated based on the minimum inside diameter according to manufacturer's published information.

Nominal Diameter, inches	Pipe Specification	Base Inside Diameter, inches	96-2/3 Percent Mandrel Diameter ⁽¹⁾ , inches	95 Percent Mandrel Diameter ⁽²⁾ , inches
8	PVC SDR 26	7.488	7.24	7.11
10	PVC SDR 26	9.342	9.03	8.87
12	PVC SDR 26	11.102	10.73	10.55
15	PVC SDR 26	13.575	13.12	12.90
18	PVC SDR 26	16.570	16.02	15.74
⁽¹⁾ Use for testing less than 30 days after installation				
⁽²⁾ Use for testing 30 days or more after installation				

Flexible pipe deflection shall be checked by means of a 9-arm “go – no go” mandrel pipe deflection gauge. The mandrel shall have pulling rings at each end and shall be pulled by hand through the sewer without the aid of mechanical pulling devices. The pipe deflection shall be checked in the presence of the Engineer after conducting air testing described in Section 12.

The mandrel deflection gauge shall be fabricated to permit passage through installed sections of pipelines within the specified tolerances for flexible pipe. Any section or sections of flexible pipe that does not permit deflection gauge passage will not be accepted and said section or sections shall be properly repaired or replaced and rechecked as directed by the Engineer.

7. MISCELLANEOUS REQUIREMENTS

- a. Wyes or tees for buildings sewers or lateral connections shall be completed using in line bell and spigot type fittings molded from resins specified. Exception to this is when a saddle-type fitting is authorized on the plans, or as directed by the Engineer in the field. Fittings and taps that protrude into the sewer main will not be allowed.
- b. Fittings shall be sized to receive type of pipe specified for building sewer lateral. Installation of fittings will be in accordance with manufacturer's recommendations.
- c. Two water stops specified by the pipe manufacturer and approved by the District shall be installed at all manhole connections. The water stops shall be placed in the manhole base and centered under the manhole wall. The water stops shall be firmly fitted around the pipe exterior. Said water stops may also consist of a manhole coupling with rubber sealing rings cast into the structure base. No rubber boot type connections are allowed. The water stops shall consist of at least two continuous circles of contact such as two O-rings or a shear band coupling with two stainless steel bands.

C. OTHER PIPE

Other pipe materials may be used for sewer installation provided approval by the Engineer is granted.

The pipe shall be joined with couplings as furnished with the pipe by the manufacturer, and installed as specified by the manufacturer.

5.03 PIPE COUPLINGS

Pipe couplings (such as shear band couplings) shall be used to join pipes of unlike materials and to join pipes of like materials when a splice is made. Pipe couplings shall be banded rubber couplings with four clamps and Type 316 stainless steel shear bands. Pipe couplings shall be fastened on each end with Type 316 stainless steel worm-gear bands. Couplings shall be installed as recommended by the coupling manufacturer. A concrete collar around the joint may be required by the Engineer.

Acceptable shear band couplings include Fernco 5000 Repair Coupling Series and Mission Rubber Adjustable Repair Coupling.

5.04 SADDLE

A tee-branch saddle fitting fabricated of material approved by the Engineer and with a flange which will prevent the saddle from entering the main sewer beyond its inside surface. The flange shall have a curvature designed for the size main on which it is to be used.

The saddle shall create an airtight connection and at the option of the Engineer may require air testing.

5.05 EMBEDMENT

All pipe shall be embedded and backfilled as specified with extra care taken in compaction of said embedment and backfills as specified in Section 9 of these Specifications.

5.06 STAINLESS STEEL BANDS

Stainless steel bands shall be ASTM A-167, Type 316. Any fitting or coupling using stainless steel bands shall have the area of the band wrapped twice with 10 mil plastic tape.

SECTION 6 - PORTLAND CEMENT CONCRETE AND MORTAR

6.01 CONCRETE

Concrete shall consist of a mixture of Type II Portland Cement, sand, fine aggregate, coarse aggregate and water. The proportions of the water, sand and aggregate shall be regulated so as to produce a plastic, workable and cohesive mixture yielding the strength indicated. Unless noted otherwise, all concrete shall be Class "A".

A. CLASS "A"

Class "A" concrete shall contain 564 pounds (6 sacks) of Portland Cement per cubic yard and shall have a minimum 28-day compressive strength of 4,000 psi in accordance with ASTM C-39.

B. CLASS "C"

Class "C" concrete shall contain 376 pounds (4 sacks) of Portland Cement per cubic yard and shall have a minimum 28-day compressive strength of 2,500 psi in accordance with ASTM C-39.

All material required, and the procedure of mixing, shall meet the requirements set forth in Section 90 of Caltrans State Standard Specifications, except that 3/4 inch maximum size aggregate shall be used and slump ranges of three (3) to four (4) inches for Class "A" concrete and four (4) to eight (8) inches for Class "C" concrete shall be maintained.

No admixtures will be permitted unless authorized by the Engineer.

Cement and aggregates shall be stored in such a manner as to prevent deterioration or intrusion of foreign matter.

Mixed concrete shall be used before initial set and in no case will retempering with additional water be permitted.

6.02 MORTAR AND GROUT

The dry materials used for mortar shall be thoroughly mixed with sufficient clean water to produce a uniform, plastic, workable and cohesive mixture.

Sand for mortar and grout shall be clean, dry, well-graded sand, free of organic or other deleterious matter, silt or other objectionable inorganic matter, pH level ≥ 7 , and shall be of such size as determined by laboratory sieves, conforming to the following gradation.

Sieve Size	Percent Passing
3/8-inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85
No. 30	25-60
No. 50	5-30
No. 100	0-10
No. 200	0-5

Cement shall be Type II Portland Cement. An industrial grade all-purpose non-shrinking cement such as "All Crete" or "Speed Crete" may be used.

No admixtures shall be used in the mortar or the grout unless otherwise specified or approved by the Engineer.

Mortar shall be composed of cement and sand proportioned and mixed as specified herein. Type "A" mortar shall be used unless Type "B" is specified by the Engineer.

A. TYPE "A"

Type "A" shall consist of one part by volume of cement and two parts by volume of sand. Minimum compressive strength shall be 5,000 psi at 28 days.

B. TYPE "B"

Type "B" shall be a case basis, mixed and used in accordance with manufacturer's recommendations. Minimum compressive strength shall be 5,000 psi at 28 days.

Mixed mortar shall be used before initial set and in no case will retempering with additional water be permitted.

SECTION 7 - SEWER PIPE AND STRUCTURE INSTALLATION

7.01 SEWER PIPE LAYING

A. CONSTRUCTION STAKING

All main sewers and building sewers shall be staked in the field in accordance with the requirements of the Union Sanitary District. The grades and alignment of the sewer so staked shall be approved by the Engineer prior to start of sewer construction. (See Standard Specifications Sections 19.02, 22.07 and 23.06 for staking requirements and submission of cut sheets.)

B. ALLOWABLE DEVIATION OF ALIGNMENT AND GRADE

The horizontal deviation of the sewer from the line shown on the Plans shall be not more than three (3) inches. The sewer grade shall not deviate from the profile shown on the Plans, and the grade shall be maintained during and after backfilling operations. Sewer grades with deviations exceeding 1/2 inch shall be removed and replaced at Contractor's expense. If deviations less than 1/2 inch from the design grade occurs, pipe joints may be deflected to bring the invert back to grade. Grade corrections shall be made gradually to prevent sags in the pipe invert at low spots. Pipe shall be installed to be free draining (no sags) between any two points. No reverse (adverse) grade will be allowed.

C. LASERS

When laying main sewers, unless otherwise approved by the Engineer, the contractor shall use a commercial laser grade setting system. When using a laser, the following requirements and conditions must be met:

1. The Contractor shall have the responsibility of providing an instrument operator who is qualified and trained in the operation of the laser and said operator shall adhere to the provisions of the State of California Construction Safety Orders issued by the Division of Industrial Safety. Attention is particularly directed to Section 1514, 1800 and 1801 of said orders for applicable requirements.
2. When using a laser, the laser shall be connected firmly to a tripod, set firmly on compacted soil. The laser height of instrument shall be taken from one (1) offset hub and checked with at least two (2) more hubs, until 2 or more hubs show consistent readings or until readings coincide. This shall be done every time the laser is set up, or disturbed.
3. The laser and level instruments shall be properly calibrated within six (6) months prior to use. A laser or level instrument found to be out of calibration or without records showing it has been calibrated within the last six months, shall be removed from the job site until it has been properly calibrated.

D. GRADE LINE

When laying pipe for building sewers, in lieu of a laser grade setting system, the Contractor may use a grade line. When laying the pipe, except where vertical curves are shown on the Plans, or otherwise authorized by the Engineer, the Contractor shall use a grade line with at least two (2) adjacent runs up at all times in order to detect any variation from a straight grade. The grade line must be established over the center of the trench in vertical trenches and over the center of the pipe in V-type trenches during the laying operations, and grade line shall be maintained up until the pipe grade is checked by the Engineer.

The grade line shall be accurately and securely fastened at each staked station to securely erected batter boards and kept taut at all times.

The measuring pole shall be a solidly constructed straight pole with a metal foot at one end at right angles to the pole. The batter board construction, string line and measuring pole construction shall be approved by the Engineer prior to start of sewer pipe laying.

In caving ground and in other circumstances when the above is not practicable, and when so authorized by the Engineer, the pipe must be checked by surveying instruments under the direction of a Registered Civil Engineer or Land Surveyor who shall accept the responsibility for the pipe being installed on the proper grade.

E. SEWER PIPE PLUGS

Sewer pipe stubs, or other open ends, which are not to be immediately connected, shall be plugged or capped with a standard watertight plug or cap as approved by the Engineer for use in the particular installation. The plugs or caps may only be removed when so authorized by, and in the presence of, the Engineer.

F. JOINT DEFLECTIONS AND MINIMUM RADIUS

When approved by the Engineer, curved sewers shall be in conformance with the following requirements.

1. RIGID PIPE

The deflection in the joint between any two successive pipe sections shall not exceed 75% of the maximum allowable deflection as recommended by the pipe manufacturer. For rigid pipe, two (2) foot minimum pipe lengths may be supplied or pipe may be cut, if approved joint material is available, to install short radius curves and conform with the joint deflection limitations. When short lengths are to be used, it shall be so shown on the Plans.

2. FLEXIBLE PIPE

For flexible pipe, horizontal curves shall be achieved without joint deflection. Flexible pipe horizontal curves shall be achieved by bending pipe barrel to the required radius and securing the bent pipe barrel with stake restraints prior to backfilling. The minimum allowable bending radius is shown in the following table.

Pipe Diameter, inches	Minimum Radius, feet
4	100
6	150
8	200
10	250
12	300
15	350
18	450

G. VERIFICATION OF EXISTING SEWER OR STRUCTURE

Where connection is to be made to an existing sewer or structure, said existing sewer or structure shall be uncovered and checked for location and elevation prior to submitting cut

sheets. Any discrepancy between the Plans and field information shall be reported immediately to the Engineer.

H. COMMENCEMENT OF NEW SEWER PIPE LINE

Unless otherwise authorized by the Engineer, the laying of the pipe in finished trenches shall be commenced at the lowest point of the project, with the spigot ends abutting and pointing in the direction of the flow. The joints shall be carefully centered so that when laid to proper grade and alignment as designated on the Plans, they will form a sewer with a uniform invert.

I. SEWER PIPE LINE THROUGH MANHOLES

Except when precast manhole base blocks are used, sewers shall be laid continuously through proposed manhole locations on all straight runs and at angle points. When excavation is made below the pipe for manhole construction, care must be taken that the pipe spanning this area is firmly supported.

J. SHEAR BAND COUPLINGS AT MANHOLES

For rigid pipes, a shear band coupling with four clamps, shall be installed at a point 6 to 12 inches outside of the manhole base block on both upstream and downstream sides. In all cases, the flexibility of the coupling must be maintained by keeping all concrete away from the joint or coupling. A bell joint is not acceptable for this requirement.

K. GROUND TO BE FILLED

In ground to be filled, fill shall be placed up to 3 feet above where the outside of the pipe would be and laterally to a width of the pipe outside diameter plus six (6) feet centered on where the pipe would be, and compacted prior to the construction of the sewer. The compaction requirements, as specified by the Agency governing the fill, shall be considered adequate except that not less than 90% relative compaction per ASTM D-1557 "Modified Proctor" shall be achieved. Evidence of these results in the areas concerned shall be furnished to the District (from an approved testing laboratory) prior to construction of the affected sewer.

L. HANDLING OF PIPE

Pipe shall be protected during handling against impact shocks. Prior to making pipe joints, all surfaces of the portion of the pipe to be joined shall be cleaned, dried, primed or otherwise prepared as called for in these Specifications. The interior of all pipe shall be kept free from all dirt and foreign matter as the work progresses.

—At the close of each day's work, and at such other times when the pipe is not being laid, the ends of all open pipes shall be closed with a water tight plug or cap. Any modification of this requirement must be approved by the Engineer.

M. FIELD CUTTING PIPE

Unless otherwise permitted by the Engineer, pipes that must be cut in the field shall be cut with mechanical cutters or as recommended by the pipe manufacturer.

7.02 SPLICE

When a pipe is to be spliced into an existing sewer, the sewer shall be exposed and then mechanically cut at right angles to the pipe barrel, with sufficient length removed so that a pipe section with plain ends can be joined to the cut pipe with approved couplings to form an airtight joint. All work shall be done in the presence of the Engineer. Care must be taken to

fill all voids under and around the pipe splice with Type "B" Import material to properly support the new pipe and prevent any settlement of the spliced section.

7.03 MANHOLE

Manholes shall be sound watertight structures, constructed as shown on the Standard Details or on the Plans in the case of special structures. The type of manhole and its location is to be shown on the Plans. The manhole shall be constructed to the rim elevations shown on the Plans.

A. MANHOLE BASE BLOCK

The base block shall be poured using Class "A" concrete and in accordance with the design shown on the Standard Details. Precast base blocks may be used for standard manholes approved by the Engineer and City jurisdiction. Precast base blocks may not be used for trunk manholes.

The concrete pour shall be made only on dry, firm undisturbed ground or on "rock ballast" placed on undisturbed ground. If the pour is on filled ground, the ground shall be compacted to a 95% Relative Compaction per ASTM D-1557 "Modified Proctor." The concrete shall be placed with a continuous pour deposited in such a manner that segregation of material does not occur. Once deposited, the concrete shall be consolidated with mechanical vibrators so as to secure a dense watertight mass.

An approved metal form ring shall be used so that a level keyed slot is formed in the fresh concrete to receive the pre-cast manhole shaft section.

When the sewer pipe has been laid through the proposed manhole, the top half of the sewer pipe shall be removed to within one (1) inch longitudinally of the inside wall of the manhole and the cut finished with mortar as specified by the Engineer.

The width of opening at the top of base block shall be the inside diameter of the pipes in the manhole.

In angle point manholes and in junction manholes, the pipes shall be joined by smooth curves, warped to conform to the lower half of the pipe. In all cases, the upper portion of the manhole channel from the mid-point of the pipes in the manhole to the top of the base block shall be constructed vertically.

When the manhole channel is not completed in the original pour, it shall be finished smooth by use of mortar with per Section 6.02. Before application of the mortar, the existing concrete surface shall be thoroughly cleaned and roughened to secure a firm bond. All channels shall be troweled smooth so that a smooth uninterrupted surface is achieved. The top of the base block shall be troweled to slope towards the channel at an approximate slope of one (1) inch in six (6) inches.

Placement of manhole components on cast-in-place manhole bases shall not occur until the next working day, at a minimum, after the base has been placed.

B. MANHOLE SHAFT AND PRECAST BASE BLOCK

The manhole shaft shall be composed of precast concrete sections. These sections shall be installed plumb and aligned so that the steps are in a straight vertical line. Unless otherwise required by the Engineer, the steps shall be aligned horizontally forty-five (45) degrees away from the direction of the flow of the sewer main on the upstream side.

Precast concrete sections shall be in accordance with the Standard Details and shall conform to the requirements of ASTM Designation C-487 except that Type II or Type V Portland Cement shall be used. The cone section shall be concentric unless eccentric is allowed by the Engineer.

Unless otherwise directed by the Engineer, manholes to be installed in all proposed City streets and paved Public Easements will be constructed with standard cone section per Standard Detail Sheets. In these cases, the neck rings and cast rings shall be installed after the street section has been completed.

Joints between precast sections shall have a "Ram-Nek" flexible plastic gasket installed between the tongue and groove joint to make a watertight joint. After the shaft is in place, the joint shall be trimmed smooth with a sharp tool on the inside of the manhole.

Manhole sections will be ordered without steps when the distance between the top rim and top of base block is less than four (4) feet. Precast manhole base blocks, when allowed by the Engineer and city jurisdiction for standard manholes, shall have a standard pipe bell cast into the base block. Rubber boot type connections are prohibited.

C. DROP CONNECTIONS

Drop connections are only allowed with prior District Engineer approval. When a drop connection is shown on the Plans, it shall be included as part of the manhole construction. The drop shall be made with approved fittings outside the manhole shaft as shown on the Standard Details. The lowest pipe shall be constructed into the base block by aforementioned channeling procedures. The base block shall be enlarged to encase these lower fittings.

After the manhole shaft is in place, the upper pipe run shall be constructed through the precast wall, flush with the inner wall. The hole between the pipe and the precast section shall be mortared to a watertight condition. This pipe and drop shall then be encased in concrete to the point where the upstream sewer trench is of normal width and depth.

D. MANHOLE CASTINGS

Manhole frame and cover shall be Class 30 cast iron designed as shown on the Standard Details and conforming to ASTM Designation A-48. Manufacture's name, initials or logotype shall be cast in the frame and cover. The bearing surfaces of the frame and cover shall be machined and the cover shall seat firmly without rocking. Before leaving the foundry, all casting shall be protected with an asphalt coating as follows:

1. The surface to be protected shall be clean, uncoated cast iron free of oil, grease, scale or rust.
2. The casting shall be painted with asphalt paint or as an alternative the entire casting shall be dipped in asphalt paint.

The manhole frame and cover shall be permanently set when so authorized by the Engineer.

The frame shall be centered on the manhole shaft and laid on mortar to final grade. The mortar shall be neatly struck.

E. MANHOLE STEPS

Steps shall be installed in the manhole cone and barrel sections by the manhole manufacturer before being shipped to the job site unless the manhole is specifically ordered without steps.

Steps for manholes shall be made of Copolymer Polypropylene that encapsulates a 1/2" grade 60 steel reinforcing rod. This step shall conform to ASTM Designation C-478, Paragraph 16.

The steps shall be PS2-PFS manhole steps as manufactured by M.A. Industries Inc. (800-241-8250), P-13938 as manufactured by Lane International Corporation (800-666-0076), or approved equal.

F. MANHOLE COLLAR

Unless otherwise specified by the Engineer, a concrete collar shall be poured around the frame and shaft so as to securely anchor the frame to the shaft. (See the Standard Details)

G. MANHOLE LINERS

All trunk manholes and drop manholes shall be lined with 65 mil thickness PVC liner embedded into the manhole concrete at time of pour. Standard manholes shall be lined where required by the Engineer. Liner shall be T-lock as manufactured by Ameron or approval equal. Liner shall extend from the bottom of the grade rings to the top of the bench wall shelf.

Joints in liner shall be heat welded with strips of PVC, same thickness as liner. Liner and joints shall be spark tested in the presence of the Engineer. Spark testing shall be performed at minimum 15,000 volts with a Tinker and Razor Holiday Detector, or approved equal. Any holidays or pinholes shall be patched by thermal welding strips over the pinhole and the area patched shall be retested. The manhole will not be accepted until it is holiday and pinhole free.

7.04 RISER (MAIN SEWER ONLY)

A. RISER SHAFT

The riser shaft shall be a straight piece of pipe joined to the main by means of a 45-degree bend fitting, with both shaft and fitting joined in the same manner, as required in the pipe laying section of these Specifications.

The shaft shall be installed at a 45-degree angle and so positioned that the 45-degree bend fitting is located at the station shown on the Plans. The shaft will be cut smoothly at a 45-degree angle so that the highest point will extend to within two (2) inches of the casting cover. The exposed end of the shaft shall be temporarily sealed to prevent dirt or debris from entering into the sewer until such time as the frame and cover are permanently installed.

B. RISER CASTINGS

The riser frame and cover shall be Class 30 Cast Iron designed as shown on the Standard Details and conforming to ASTM Designation A-48. Manufacture's name, initials or logotype shall be cast in frame and cover. The cover shall seat firmly without rocking. Before leaving the foundry, all castings shall be cleaned and coated with asphaltic material.

The frame shall be centered on the riser shaft opening so that the pipe does not touch the frame. When the frame has been set to final grade, a concrete block shall be poured around the frame.

The riser frame and cover shall be permanently set when so authorized by the Engineer.

7.05 CLEANOUT TO GRADE (BUILDING SEWER ONLY)

A wye-branch fitting, with branch the same diameter as the building sewer, shall be installed so that it opens in a direction opposite to the flow of the sewer, vertically above the pipe barrel. Necessary fittings and pipe, of the same diameter as the building sewer, shall be used to bring the "cleanout" vertically to ground surface and an approved box and cover installed, all as shown on the Standard Details.

Cleanouts shall be constructed as shown on the Standard Details and in locations shown on approved plans. A transition coupling and cleanout shall be provided and installed at the property line.

The vertical pipe shall be plugged below subgrade of surface in improved areas and sufficiently below the ground surface in unimproved areas so as to be protected during final site preparation. After surface work is complete, the riser pipe will be extended to finished grade, capped with an airtight threaded body and cap plug and protected with an approved cleanout box per Standard Details.

7.06 TWO-WAY CLEANOUT TO GRADE (BUILDING SEWER ONLY)

A two-way fitting with a riser pipe, both of the same diameter as the building sewer, shall be installed vertically above the pipe barrel. The "two-way cleanout to grade" will be brought to finished grade, capped with an airtight threaded body and cap and protected with an approved cleanout box per Standard Details.

When a plastic two-way fitting is used, a six (6) inch long plastic stub must be installed into the downstream bell of the two-way fitting in order to permit a proper coupling to be made with other types of material used for the building sewer.

7.07 TEST WYE (BUILDING SEWER ONLY)

A wye-branch fitting, with branch the same diameter as the building sewer, shall be installed so that it opens in a direction opposite to the flow of the sewer vertically above the pipe barrel. The test wye shall not be removed after testing, but shall be capped with an airtight threaded body and cap and left in place. Rubber caps shall not be used.

7.08 SEWER THROUGH CASING

Unless otherwise required by the Engineer, when main sewer pipe cannot be installed by open cut methods, it must be installed in a casing as shown on the Plans.

Pipe casing size, material and thickness will be as specified on the Plans.

The casing material will be delivered to the job site with ends fabricated to a true right angle with the axis of the pipe to facilitate accuracy of jacking.

Welded Steel Pipe Casing shall conform to ASTM Designation A-53 Grade B, A-139 grade B or A-252 Grade 2.

Where approved by the Engineer, 4 inch and 6 inch pipes can be bored; larger diameters require casing. The minimum inside diameter of the pipe casing shall be eight (8) inches greater than the maximum outside diameter of the sewer to be installed therein, with a minimum outside diameter of thirty (30) inches for any casing unless otherwise approved by the Engineer.

The casing sections shall be joined by a continuous watertight weld.

The jacking pits shall be excavated and backfilled in accordance with Section 8 and 9 respectively, of these specifications. A submittal for the jacking pit installation shall be required prior to the start of the jacking operation.

The guide rails for the jacking machine shall be accurately set and checked by a licensed surveyor, so that the casing, while being jacked, will be guided to correct line and grade to enable the sewer pipe to be centered in the casing.

The front of the casing pipe shall be provided with mechanical arrangements or devices that will positively prevent the auger from leading the pipe so that no unsupported excavation is ahead of the pipe. The auger and cutting head arrangement shall be recessed to prevent the flowing of material from the face of the casing into the casing. The auger and cutting head arrangement shall be removable from within the pipe in the event an obstruction is encountered.

The Contractor shall be responsible for surface subsidence and damage or disturbance to adjacent property and facilities that may result from the Contractor's Construction method. In the event that loose material is encountered and cave-ins occur or are anticipated, all jacking will be discontinued, approved shoring shall be provided and all voids filled by pressure grouting.

It is recommended that the Contractor make frequent checks on the casing grade during installation. Grade stakes, indicating pipe invert elevations, shall be located at both ends of proposed casing.

Immediately after completion of the jack and bore operation, lean grout shall be injected through the grout holes of casings 30-inches and larger in a manner that will completely fill all voids outside the casing pipe resulting from the jack and bore operation. The lean grout shall consist of one part Portland cement, four parts sand, 2% bentonite by weight of cement, and sufficient water to produce a workable mixture. Bentonite shall be commercially processed powdered bentonite. Sand gradation shall be 100% pass No. 8 sieve and at least 45% pass No. 50 sieve. Grout pressure is to be controlled so as to avoid deformation of the casing and/or avoid movement of the surrounding ground. Sand for grout to be placed outside the casing shall be of such fineness that 100% will pass a No. 8 sieve and not less than 35% will pass a No. 50 sieve. After completion of grouting, the grout connections shall be closed with cast-iron threaded plugs.

When the casing has been completed, and before the sewer is installed, it shall be inspected and approved by the Engineer. Pipe material as shown on the Plans shall then be joined and installed on proper grade through the casing.

The sewer pipe shall be securely supported through the casing as shown on the Standard Details. After the sewer pipe is installed, it shall be given a preliminary air test in the presence of the Engineer (See Section 12 of these Specifications) and internally inspected by closed circuit television (see Section 13 of these Specifications). After the test is satisfactorily completed, and the television inspection favorably reviewed, the annular space between the pipe and the casing shall be filled with dry sand (see Section 6.02 of these Specifications) mechanically blown in or filled with cellular concrete so as to completely fill all voids after which the space between the end of the casing and the pipe shall be sealed to a watertight condition. The pipe shall be anchored and secured to prevent movement during the filling of the annular space.

7.09 REHABILITATION OF BUILDING SEWERS USING PIPE-BURSTING

A. GENERAL

Building sewers in poor condition due to cracked pipe or joints, leaking joints (infiltration), or root intrusion may be rehabilitated using the pipe-bursting method, if approved in advance by the District. Certain conditions, such as building sewers with insufficient grade, sags, or in close proximity to other utilities may not be suitable for rehabilitation using the pipe-bursting method. This specification is intended for rehabilitation of 4-inch or 6-inch diameter building sewers only.

Approval of the pipe-bursting method by the District can only be made after reviewing the pre-rehabilitation inspection video, which is a required submittal item. Approval of the submittal by the District does not imply that the proposed pipe-bursting installation is appropriate for the specific location being proposed for installation. The Contractor is completely responsible for all elements of the pipe-bursting installation, including safety of installation, conflicts or damage to: utilities, property improvements, sidewalks, driveways, curbs, gutters, pavement, and equipment, or installation problems caused by existing building sewer pipe materials, subsurface conditions, or access restrictions.

B. DESCRIPTION

Pipe-bursting rehabilitation consists of splitting and expanding the existing pipe and simultaneously pulling, or pushing, a new high-density polyethylene (HDPE) pipe into the resulting void. The method requires the excavation of two pits. The insertion pit shall be used to insert the pipe splitting device followed by the new pipe. The exit pit shall be used to receive the splitting device and new pipe through the existing building sewer. After insertion, a cleanout to grade shall be installed at the property line and the new pipe shall be connected to the existing pipe.

C. SUBMITTALS

1. A letter signed by the property owner authorizing the installation of the building sewer using the pipe-bursting method. The letter must also acknowledge that the pipe-bursting procedure and limitations have been explained to the property owner by the Contractor.
2. Pre- and post-rehabilitation video inspections: The Contractor shall inspect the building sewer using a CCTV camera and provide video files and inspection reports for each building sewer on a flash drive or in a DVD format. Submitted files shall only contain information from one building sewer per flash drive or DVD. The video shall show the footage of the camera and shall include the complete length of the building sewer to be replaced. Prior to video inspection, the existing pipe must be clean of all debris and must be wet so that sags can be easily detected. The video inspection shall adequately document the location of the work by capturing the address number of the structure and any other details pertinent to the work. If the videos do not adequately show the location of the work or the condition of the lateral, the Engineer will require the video inspections to be redone and may require a District Representative to be present for video inspections.

D. EQUIPMENT

The pipe-bursting equipment may be either hydraulic, pneumatic, or the cone cracking type. The bursting head shall be specially designed to force its way through the existing pipe materials by fragmenting the pipe and compressing the old pipe section into the surrounding soil as it progresses. The head shall be designed to produce a maximum opening dimension of 1 inch (diameter) larger than the outside diameter of the new HDPE pipe. The pipe-bursting system shall be used to replace the existing building sewer with the same nominal size pipe. The system shall not be used to increase the size of the building sewer.

E. PIPE

The HDPE pipe shall be as specified in Section 5.02 of these Standard Specifications.

F. UTILITIES

At least 48 hours prior to excavation, the Contractor shall call Underground Services Alert (USA) at 811 or (800) 227-2600. The Contractor shall request utility markings for the entire reach of the proposed pipe burst. The Contractor shall pothole all utilities crossing the

proposed pipe burst to determine the clear distance between each utility and the existing building sewer. Utilities with less than 12 inches of clearance or water mains and services with less than 24 inches of clearance shall be left exposed during the pipe-bursting installation.

G. INSTALLATION

1. After coordinating with the property owner and residents, plug existing building sewer or provide by-pass pumping system to prevent sewage spills. Dumping or free flow of sewage within the excavation or on public or private property, gutters, streets, and storm drain facilities is prohibited.
2. The insertion pit shall be large enough so that HDPE pipe can be installed without exceeding the minimum bending radius. The minimum bending radius shall be 20 times the outside diameter of the pipe or as recommended by the pipe manufacturer, whichever value is larger.
3. After installation, the Contractor shall allow a minimum of four (4) hours for relaxation due to tensile stressing and to allow the pipe to thermally acclimate with the soil prior to installing final connections to main sewer or building sewer. Temporary connections can be installed sooner to reinstate sewage flows.
4. Any installed pipe, which has cuts or abrasions in the pipe wall exceeding 10 percent of the wall thickness, shall be cut out and removed from the site.
5. After final cleaning of the building sewer, water shall be introduced into the new pipe section and the post-rehabilitation video inspection shall be completed and the video submitted to the District for approval.

H. TESTING

Refer to Section 12.01 for testing requirements.

I. CONNECTIONS

A cleanout to grade, including box and cover, shall be installed at or near the property line as shown on the Standard Details. Connections shall be completed using shear band couplings with Type 316 stainless steel bands.

SECTION 8 - EXCAVATION

8.01 DEFINITION

Excavation shall mean all of the below ground-surface work (including cutting of pavement; control of ground water, storm water and other extraneous water; removal, handling, stockpiling and/or proper disposal of removed material and water) necessary to prepare a firm, dry bed for the sewer line and structures.

The Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to U.S. Department of Labor (OSHA), the California Occupational Safety and Health Act (CalOSHA), and all other applicable Federal, State, County, and local laws, ordinances, codes, including but not limited to the requirements set forth below, and any regulations that may be detailed in other parts of these Standard Specifications. In the event of conflicting requirements, the most stringent requirement as it pertains to the Contractor's safety responsibility, shall be followed by the Contractor.

The excavation shall be made to enable the sewer to be laid to the grade and alignment designed on the Plans.

8.02 OPEN TRENCHING

The excavation for sewers shall be made by open trenching except where tunneling is necessary. Existing pavement shall be saw cut and replaced in accordance with Section 10. The walls of the sewer trench shall be vertical in the region between the bottom of the trench and the top of the sewer pipe. In this region, at least six (6) inches but not more than twelve (12) inches of clearance shall be maintained between the outer wall of the pipe barrel and the embankment or shoring, unless otherwise approved by the Engineer.

The trench shall be excavated to a level section and to such elevation as will give a uniform bearing and true flow line elevation when the sewer pipe is laid. All loose dirt in the bottom of the trench must be removed.

A. MUD OR OTHER SOFT OR SPONGY MATERIAL

Where mud or other soft or spongy material incapable of proper pipe support is encountered, it shall be excavated to a minimum depth of twelve (12) inches below sewer subgrade. Limits of the material to be removed shall be designated by the Engineer in the field. However, this does not relieve the Contractor of the requirements of these Specifications, including, but not limited to, allowable deviation of alignment and grade.

B. ROCK

Where rock is encountered, the trench shall be excavated to a minimum depth of three (3) inches below the sewer subgrade and backfilled to sewer subgrade with Type "B" Import, thoroughly compacted to grade before the sewer pipe is laid.

C. OVER EXCAVATED AREAS

Over excavated areas in the trench bottom where "Type B" Import bedding will be placed, shall be restored to sewer subgrade with "Type B" Import, thoroughly compacted before the sewer pipe is laid. (Exception to this requirement is for private sewer lateral trenches in unpaved private property from the property line to the building, where gravel, crushed rock or sand may be placed).

D. COMPACTION

In all the above situations, the compaction shall be achieved by mechanical means. Water settling, flooding, jetting, and other water consolidation methods are expressly prohibited.

E. BRACING AND SHORING

The contractor shall at all times furnish, install, and maintain sufficient bracing and shoring in trenches to insure safety of the workmen and to protect and facilitate the work. When practical, all such bracing and shoring shall be removed from the trench as the backfilling proceeds.

F. BLASTING

In the event that blasting is necessary in excavation, special permission, in writing, must be obtained from the Agency having jurisdiction over the issuance of blasting permits before any blasting will be permitted. Such permission shall in no way relieve the Contractor of the responsibility for obtaining any permits or licenses required by State Law or Local Ordinance.

G. SEWER SUBGRADE

The sewer subgrade shall be kept dry at all times and precautions shall be taken that no storm water is allowed to enter the excavation prior to backfilling. The Contractor shall, at all times, have on the job, sufficient pumping machinery for immediate use. Water shall be disposed of in accordance with the requirements of the city having local jurisdiction, and in such a manner as to cause no damage to public health or safety, or to public or private property.

H. EXCAVATION MATERIAL

Material excavated in streets and roadways and required for backfill, shall be laid alongside the trench and kept trimmed up so as to cause as little inconvenience as possible to public travel.

Free access must be provided to all fire hydrants, water gates, meters and private drives, and means shall be provided so that water can flow in the gutters uninterruptedly.

All materials excavated in streets and roadways and not required for backfill, shall be immediately removed and properly disposed of by the Contractor. No surplus material shall be disposed on private property.

I. OPEN TRENCH PERMITTED

The Engineer will specify the amount of open trench permitted at any one time. In general, the length of trench open at any time shall be limited to 100 feet in business areas; 250 feet or one block (whichever is less) in residential areas; and 1,000 feet in undeveloped areas.

No trench shall be allowed to remain open outside of work hours. At the end of a work day the trench shall be backfilled or secured with steel plates.

J. CONTRACTORS RESPONSIBILITY

It shall be the responsibility of the Contractor to conform to all the requirements of all permits obtained from all Agencies and to make the construction site safe against injury to people and/or livestock by erection of adequate posted barricades and/or temporary fences.

K. GROUNDWATER

The Contractor shall keep excavations free from water during construction. Groundwater shall be controlled to prevent softening of the bottom of excavations, or formation of "quick" conditions. The static water level shall be drawn down to a sufficient depth below the bottom of excavations to maintain the undisturbed state of natural soils and allow the placement of any fill to the specified density. Dewatering systems shall not remove natural soils. The Contractor shall control surface runoff to prevent entry or collection of water in excavations.

The Contractor shall obtain any and all permits required in conjunction with the installation and removal of the dewatering system and shall meet all permit requirements.

The Contractor shall contact the local drainage authority for discharge requirements. The Contractor shall dispose of water from dewatering operations so as not to cause injury or damage to adjacent property and shall at all times remain in compliance with the requirements of the local drainage authority.

SECTION 9 - TRENCH BACKFILLING

9.01 TRENCH BACKFILLING

Trench backfilling shall consist of all materials placed in an excavation in the process of constructing a sewer line and/or appurtenances. No backfill shall be deposited over a sewer line and/or appurtenances until pipe laid has been inspected and approved by the District for backfilling operations.

9.02 PIPE FOUNDATION - (IF REQUIRED BY ENGINEER)

Pipe foundation shall be that portion of the trench which is nine (9) inches below the sewer subgrade. This portion of the trench shall be backfilled with "Rock Ballast" thoroughly compacted to achieve a firm, dry bed for the sewer pipe or structure. Locations of the "Rock Ballast" will be designated by the Engineer in the field. However, this does not relieve the Contractor of the requirements of these Specifications, including, but not limited to, allowable deviation of alignment and grade. Rock ballast shall be wrapped in non-woven geotextile fabric composed of polypropylene. The fabric shall be consistent with the physical characteristics of Mirafi: 140N, or approved equal.

A. ROCK BALLAST:

Rock Ballast shall be 1 1/2 by 3/4-inch gravel conforming to the following gradation.

Sieve Size	Percent Passing (by weight)
2-inch	100
1-1/2-inch	95-100
3/4-inch	5-30
3/8-inch	5-20
No. 200	0-4

9.03 GEOTEXTILE FILTER FABRIC

If required by the Engineer, geotextile filter fabric shall be used to wrap pipe foundation and pipe embedment as specified herein and as indicated on the Standard Details. The requirement for geotextile filter fabric may vary depending on groundwater and soil conditions.

Geotextile filter fabric shall be a non-woven material consisting of polyester, nylon, polypropylene filaments formed into a stable network. The fabric shall be permeable, not act as a wicking agent, be inert to commonly encountered chemicals, be rot-proof, and resistant to ultraviolet light.

The geotextile fabric shall also conform to the following physical properties:

Property	Test Value	Test Method
Weight	5.4 oz/yd ² (min.)	ASTM D3776/D5261
Grab tensile strength	150 lb (min.)	ASTM D4632
Elongation at break	50% (max.)	ASTM D4632
CBR Puncture	410 lb (min.)	ASTM D6241
Apparent opening size	#70 (max.)	ASTM D4751
Permittivity	1.0 sec-1 (min.)	ASTM D4491
UV resistance	70% (min.)	ASTM D4355

The geotextile fabric shall be Mirafi 160N, Linq Industrial Fabrics 150 EX, or equal.

9.04 PIPE EMBEDMENT

Pipe embedment shall mean that portion of the material placed within the trench from the sewer subgrade to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the pipe. "Sewer Subgrade" is defined in Section 2.

A. PIPE EMBEDMENT MATERIAL

1. IMPORT "TYPE A"

Shall be creek or bank gravel, crushed gravel, crushed rock, bank run rock or a mixture of these materials.

The material shall be free from roots, vegetable matter, or other deleterious substance and shall be of such nature and so graded that it will bind readily when watered and compacted to the requirement specified herein.

When tested in accordance with Section 6 of Caltrans, State Standard Specifications, the material shall meet the following requirements:

- a. The material shall be of such size that the percentage composition by weight, as determined by laboratory sieves, will conform to the following grading:

Sieve Size	Percent Passing (by weight)
1-inch	100
3/4-inch	90-100
No. 4	35-100
No. 30	10-30
No. 200	2-9

- b. The material shall also have a minimum sand equivalent of 22 and a minimum resistance (R) value of 78.
- c. Reclaimed or recycled material is not acceptable, unless pre-approved by the District Engineer.

2. IMPORT "TYPE B"

"Type B" Import shall be crushed rock (chips). This material shall contain at least 75% of the particles having one or more fractured faces. Not over 25% shall be pieces that show no such faces resulting from crushing. Rock will be designated by normal size.

When tested in accordance with Section 6 of Caltrans State Standard Specifications, the material shall meet the following requirements:

- a. The material shall be of such size that the percentage composition by weight, as determined by laboratory sieves will conform to the following graduations:

Sieve Size	Percent Passing (by weight)
1-inch	100
3/4-inch	90-100
No. 4	0-15
No. 200	0-4

In any of the subsequent sections of these Specifications where "Type B" Import is specified, "Type A" Import may be used if so authorized by the Engineer.

- b. Reclaimed or recycled material is not acceptable, unless pre-approved by the District Engineer.

3. TRENCH EXCAVATION MATERIAL

Acceptable trench excavation material shall be that material which is free from vegetable matter and refuse and shall contain no concrete, stones or clods larger than 3/4 inch in diameter and shall contain sufficient fines so that all voids will be filled when compacted.

B. PIPE EMBEDMENT INSTALLATION

1. MAIN AND BUILDING SEWERS IN PUBLIC UTILITY AND U.S.D. EASEMENTS, PUBLIC RIGHT OF WAYS AND PAVED PRIVATE PROPERTY

a. RIGID PIPE

That portion of the pipe embedment from the sewer subgrade to outside bottom of the sewer pipe, shall be "Type B" Import graded so that the pipe can be laid to proper line and grade.

Remainder of embedment to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the pipe barrel shall be "Imported Material" and unless otherwise required by the Engineer, either Import "Type A", or Import "Type B" may be used.

For building sewers, a transition coupling and cleanout shall be provided and installed at the property line. The transition coupling pipe embedment shall be Type B imported from three inches below the outside bottom of the coupling to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the coupling.

b. FLEXIBLE PIPE

That portion from the sewer subgrade to the spring line of the pipe shall be "Type B" Import. This Import shall be installed in two (2) stages.

STAGE ONE - Shall be from the sewer subgrade to the outside bottom of the sewer pipe, the import shall be graded so that the pipe can be laid to proper line and grade.

STAGE TWO: - After the pipe has been installed to the proper line and grade, the remaining import shall be installed around the pipe from the outside bottom of the pipe to the spring line.

Remainder of embedment to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the pipe barrel shall be "Imported Material" and unless otherwise required by the Engineer, either Import "Type A", or Import "Type B" may be used.

For building sewers, a transition coupling and cleanout shall be provided and installed at the property line. The transition coupling pipe embedment shall be Type B imported from three inches below the outside bottom of the coupling to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the coupling.

2. BUILDING SEWERS IN UNPAVED PRIVATE PROPERTY FROM PROPERTY LINE TO BUILDING

a. RIGID PIPE

That portion of the pipe from the sewer subgrade to outside bottom of the sewer pipe, shall be "Type A" Import, "Type B" Import, or a material approved by the District such as sand or pea gravel, graded so that the pipe can be laid to proper line and grade.

A transition coupling and cleanout shall be provided and installed at the property line. The transition coupling pipe embedment shall be Type B imported from three inches below the outside bottom of the coupling to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the coupling.

b. FLEXIBLE PIPE

That portion from the sewer subgrade to the spring line of the pipe shall be "Type A" Import, "Type B" Import, or a material approved by the District such as sand or pea gravel. This Import shall be installed in two (2) stages.

STAGE ONE - Shall be from the sewer subgrade to the outside bottom of the sewer pipe, the import shall be graded so that the pipe can be laid to proper line and grade.

STAGE TWO - After the pipe has been installed to the proper line and grade, the remaining import shall be installed around the pipe from the outside bottom of the pipe to the spring line.

Remainder of embedment to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the pipe barrel shall be "Type A" Import, "Type B" Import, or Trench Excavated material.

A transition coupling and cleanout shall be provided and installed at the property line. The transition coupling pipe embedment shall be Type B imported from three inches below the outside bottom of the coupling to a point at least six (6) inches, but no more than twelve (12) inches above the outside top of the coupling.

9.05 TRENCH BACKFILL MATERIAL

Trench backfill material is considered to be all material placed in the trench between the pipe embedment and the road bed or ground surface. Reclaimed or recycled backfill material is not allowed, unless pre-approved by the District Engineer.

A. BACKFILL IN PUBLIC RIGHTS OF WAY, UNION SANITARY DISTRICT EASEMENTS, PUBLIC UTILITY EASEMENTS, OR IN EXISTING OR FUTURE PAVED AREAS

The material, placement and compaction shall be done in accordance with the requirements and inspection of the City having jurisdiction there over. Backfill shall be compacted to a minimum 95% Relative Compaction per ASTM D-1557.

B. BACKFILL IN EXISTING AND FUTURE UNPAVED PRIVATE PROPERTY AREAS

The material placed must meet the following requirements:

1. NATIVE BACKFILL

Unless otherwise shown on the Project Plans or Specifications or otherwise required by the Engineer, "Native Backfill" may be used provided that it is free from vegetable matter and refuse and shall contain no concrete, stones or clods larger than four (4) inches in diameter and shall contain sufficient fines so that all voids will be filled when compacted, and shall be so constituted that compaction requirements can be met.

It shall be compacted to the same degree of compaction as the adjacent ground or a minimum of 85% Relative Compaction per ASTM D-1557, whichever is greater.

2. IMPORTED BACKFILL

In areas where the excavated material does not meet the requirements for "Native Backfill", then material meeting the requirements for Import "Type A", or "Trench Excavated Material" under Section 9.04 may be used. It shall be compacted to the same degree of compaction as the adjacent ground or a minimum of 85% Relative Compaction, whichever is greater.

C. COMPACTION

The method the Contractor uses to meet compaction requirements is not specified except for the following limitations.

1. Compaction shall be achieved by mechanical means. Water settling, jetting, ponding, and other water compaction methods are prohibited. Compaction testing shall be done in accordance with the requirements of the city or other agency having jurisdiction.
2. For sloped trenches, or when heavy-impact compaction equipment is used, such as sheep-foot wheels and self-propelled compactors, The Contractor shall protect the pipe from being damaged during mechanical compaction. To provide this protection, the pipe shall be covered with a minimum of 30 inches of Type "A" import at the time of installation. The remainder of the backfill shall be in accordance with the requirements of the City or other Agency having jurisdiction.

SECTION 10 - PAVING REPLACEMENT

10.01 DEFINITION

Paving shall mean that portion of the material in the trench, from the top of the backfill to the surface of the ground. It includes all lime or cement treated base material, rock, aggregate base, and surface pavement material.

10.02 PAVING IN PUBLIC RIGHTS-OF-WAY OR PUBLIC UTILITY EASEMENT

Paving in these areas shall be done in accordance with the requirements of the City or other Agency having jurisdiction there over.

10.03 PAVING IN UNION SANITARY DISTRICT EASEMENTS AND IN PRIVATE PROPERTY

Paving shall be replaced in kind unless otherwise shown on Plans or required by the Engineer.

All existing pavement at trench edges shall be saw cut to sound pavement and the exposed surfaces coated with tack coat applied in accordance with Caltrans Standard Specification 39-4.02 just prior to paving.

The pavement shall in all cases be removed to a minimum of three (3) inches outside of the excavation to permit proper keying of the restored pavement.

SECTION 11 - MISCELLANEOUS REQUIREMENTS

11.01 INSPECTION

A. CONFORMANCE TO THESE SPECIFICATIONS

All work done under these specifications shall be subject to rigid inspection and shall be performed to the satisfaction of the Engineer.

B. DOCUMENTS OF MATERIALS AND PERFORMANCE TESTS

The Contractor shall, at any time when requested by the Engineer, submit at his/her expense, properly authenticated documents of materials and performance tests as proof to the District of compliance with these Specifications.

C. ACCESS TO JOB SITE

The Engineer shall, at all times, have access to the work during construction, and the Contractor shall provide proper and safe facilities for such access and inspection.

11.02 ALTERATIONS

The Engineer reserves the right to increase or decrease the quantity of any item or portion of the work, and to make such alterations or deviations, additions or omissions from the approved Plans as may be determined during the progress of the work to be necessary and advisable for the proper completion thereof.

11.03 DEFECTIVE WORK AND/OR MATERIALS

All work which has been rejected shall be remedied, or removed and replaced by the Contractor in an acceptable manner.

All materials not conforming to these Specifications shall be considered as defective and all such materials, whether in place or not, will be rejected. They shall be removed immediately from the site of the work.

11.04 MANHOLE PROTECTION

Particular care must be taken to protect new and existing manholes from damage and to keep rock, dirt or debris from getting into the sewer.

On new manholes, or manholes that have had frame and cover removed, a steel cover of adequate strength, close fitted and well secured, shall be installed over the manhole opening until the frame and cover are permanently installed.

Ground or surface water must be kept out of existing sewers. Temporary plugs may be required by the Engineer to effect this protection.

When so indicated on the Plans or required by the Engineer, manholes in unpaved areas subject to future development will be protected by installation of a 3/4-inch plywood cover installed directly on the manhole block. This cover will be close fitting (cut in two (2) pieces to facilitate installation down the manhole neck) and installed immediately after final inspection by the Engineer.

11.05 USE OF EXISTING BUILDING SEWERS

Existing building sewers disconnected from buildings that have been demolished, or moved, may be used for new buildings only when found by the Engineer to be in conformity with these Specifications.

Full bore rodding and television inspection of the building sewer will be required as part of the review process.

11.06 BUILDING SEWER MARKING

Each building sewer shall be marked at the location where it passes under the property curb in the following manner:

A. NEW CURB

Where new curbs are constructed, a two (2) inch high letter "S" shall be impressed with an approved stamp into the fresh concrete on the curb so as to be clearly visible.

B. EXISTING CURBS

Where curbs already exist, a two (2) inch high letter "S" shall be neatly chiseled on the curb so as to be clearly visible.

11.07 MANHOLE MARKING

If deemed necessary by the Engineer, manholes located in easements will be marked with a District Marker. Marker will be supplied and installed by District Forces (at others expense.)

11.08 REPAIR OF DAMAGED SEWERS AND OTHER UTILITIES

A. NEW MAIN AND/OR BUILDING SEWERS

Main and/or building sewers not yet accepted by the District that are damaged during construction will be repaired by the Sewer Contractor in accordance with these Specifications and Standard Details. The work shall be done in the presence of and to the satisfaction of the Engineer. The portion of the pipe bedding from sewer subgrade to outside bottom of sewer pipe shall be satisfactorily installed before the pipe is laid.

B. EXISTING MAIN SEWER OR APPURTENANCES

Repairs or relocations of existing main sewers or appurtenances required by reason of damage, or conflict, will be performed by the District or by Contractors engaged by the District through a Contract or Encroachment Agreement.

Before any such work is started by District Forces, a standard District "Work Order" must be signed by the party or his/her agent, responsible for payment, authorizing the work by District Forces and agreeing to pay charges incurred. Upon completion of the work, the District will bill the party responsible for payment thereof.

C. EXISTING BUILDING SEWERS

Except as noted below or otherwise agreed to by the District, all work involving repair or relocation of existing building sewers shall be done by private Contractors. Permit requirements per Ordinance 34 Series must be met in order for a construction permit to be issued prior to the start of work. All work must be done per District Specifications and subject to District Inspection.

If such work is to be done by District Forces, a standard District "Work Order" must be signed by the party or his/her agent, responsible for payment, authorizing the work by District Forces and agreeing to pay charges incurred. Upon completion of the work, the District will bill the party responsible for payment thereof.

In event repair work is deemed necessary by the District, in its sole discretion, to alleviate a threat to the District's sewer system, and no "Work Order" is signed by the party or agent responsible for payment, or emergency repairs are undertaken by District, no approval and acceptance of construction will be issued by District until the reasonable cost of repairs are paid or arrangements appropriate to District are made for such reimbursement.

D. REPAIR OF OTHER AGENCY FACILITIES

Repair of other Agency utilities damaged during construction shall be made in accordance with the requirements of the Agency concerned.

11.09 CONNECTION OR ADJUSTMENTS TO EXISTING MAIN SEWERS OR APPURTENANCES

Except for work on sewers not yet accepted by the District and work specifically authorized by an Encroachment Agreement, all work on existing main sewers shall be done by District Forces, including:

- A. Splice into Main Sewer (See Section 23.08).
- B. Stub into Existing Public Manhole (See Section 22.20)
- C. Rechanneling Existing Public Manhole.
- D. Installation of Plywood Cover (False Bottom) Over Existing Public Manhole Base Block.

The charge for said work by District Forces is based on the District's current rate schedule. A sewer "work Request Form" signed by the Contractor shall be submitted and the charges as estimated by the District paid prior to issuance of a sewer construction permit. Refunds or additional billing will be made after completion of the work and will be based upon actual costs incurred.

The exact time that the work is to be done by District Forces must be arranged by the Contractor with the District Office (an inspector or an inspection coordinator) at least 48 hours (2 business days) in advance preceding the work day. Messages or voicemails are not acceptable.

Work to be done by District Forces that, due to its' unusual character, is not listed on the rate schedule will be billed after the work is accomplished on the basis of actual costs. Before any such work is started by District Forces, a standard District "Work Order" must be signed by the party responsible for payment, authorizing the work by District Forces.

All work done by District Forces must be paid, or appropriate arrangements satisfactory to District made, prior to District accepting construction and reporting acceptance and approval to the Governing Municipality.

11.10 ABANDONMENTS

Abandonment of existing District facilities shall be performed by Contractors engaged by the District through a Contract or Encroachment Agreement.

A. MAIN SEWERS

Main sewer pipe that is required to be abandoned shall be abandoned by one of the following methods:

- 1. Filling with slurry or cellular concrete. Slurry shall be a flowable mix containing a minimum of 1 sack cement, maximum of 1-1/2 sack cement per cubic yard.
- 2. Removing the existing pipe.

B. BUILDING SEWER

When an existing building sewer will no longer be in service, such as when a building is demolished, the building sewer shall be located and capped with an approved coupling and a

watertight cap as close to the main as possible but in no case further from the main than property line. This work requires a USD permit and shall be done in the presence of and to the satisfaction of the Engineer.

C. MANHOLE

Remove the castings, manhole body, and base block to a minimum of five (5) feet below final street grade or existing ground elevation, whichever is lower. The castings shall be delivered to Union Sanitary District, 5072 Benson Road, Union City, California 94587.

The manhole channel shall be sealed to a watertight condition with concrete. The manhole shall then be filled and compacted with self-compacting material as approved by the Engineer and City jurisdiction.

D. SEPTIC TANK

Every cesspool, septic tank, and seepage pit which has been abandoned or has been otherwise discontinued from further use, or to which no waste or soil pipe from a plumbing fixture is connected, shall have the sewage removed and be completely filled with earth, sand, gravel, concrete or other approved material.

The top cover or arch over the cesspool, septic tank or seepage pit shall be removed before filling and the filling shall not extend above the top of the vertical portions of the sidewalls or above the level of any outlet pipe until it has been inspected. After such inspection, the cesspool, septic tank or seepage pit shall be filled to the level of the top of the ground.

SECTION 12 - TESTING

12.01 TESTING MAIN SEWERS

The Contractor shall, in the presence and under the direction of the Engineer, test the water tightness of all main sewer lines. The test will be made between each adjacent structure and between the most upstream structure and dead-end. The test will be made only after all other utilities and the curb and gutter have been installed and before any street base rock has been oiled. All gravity sewer pipes shall be tested for exfiltration and/or infiltration and deflection, as specified.

A. LEAKAGE TESTS

The Contractor may test using either the Water Exfiltration Test or the Air Test as described below. Due to the safety concerns when air testing large-diameter sewers, it is recommended (not required) that sewer mains larger than 15 inches be tested using Water Exfiltration Test.

B. WHEN TESTED

1. In areas to be left unpaved, the air test shall be made after the backfill is satisfactorily compacted.
2. In areas to be paved, per Improvement Plans, when the outside top of the sewer is less than three (3) feet below the top of backfill, the air test shall be made after the "base rock" portion of the paving is satisfactorily compacted and final paving has been installed.

The test as noted in 1 or 2 above is considered the "official test". However, preliminary testing is strongly recommended and may be conducted by the Contractor at any time prior to the "official test".

C. EQUIPMENT

The Contractor shall furnish all necessary equipment, including but not limited to: an air compressor, air hoses, test water, blank plug, test gauge, test plug, standpipe, stopwatch, and personnel for conducting the test.

D. AIR TEST PROCEDURE

1. Air shall be slowly fed into the plugged pipe until the internal air pressure reaches 4.0 pounds per square inch greater than the average back pressure of any groundwater that may submerge the pipe.
2. At least two minutes shall be allowed for temperature stabilization before proceeding further.
3. The rate of air loss shall then be determined by measuring the time interval required for the internal pressure to decrease from 3.5 to 2.5 pounds per square inch greater than the average back pressure of any groundwater that may submerge the pipe.
4. Air testing sewer mains, particularly larger diameter mains, can be very dangerous due to the very large forces developed. The Contractor shall be fully responsible and take all precautions necessary to ensure the safety of their workers. All plugs shall be adequately braced to support the full load developed. No workers shall be allowed in the excavation or manhole while the line is under pressure. The Contractor shall make provisions for reading the pressure at the ground surface and for safely releasing the air pressure without entering the manhole or excavation.

E. AIR TEST REQUIREMENTS

1. The pipeline shall be considered acceptable, when the total time interval for the pressure drop from 3.5 to 2.5 pounds per square inch meets or exceeds the calculated test time based on the following table. This table is based on a rate of 0.0015 cubic feet per minute per square foot of internal pipe surface when tested per ASTM F-1417. At the Inspector's option, the test may be conducted for a pressure drop of 3.5 to 3.0 pounds per square inch and 1/2 of the time shown.

Minimum Test Time for 1 PSI Pressure Drop

Pipe Diameter, inches	Test Time, seconds/ft x feet	Minimum Test Time, minutes:seconds
4	0.38	3:46
6	0.85	5:40
8	1.52	7:34
10	2.37	9:26
12	3.42	11:20
15	5.34	14:10
18	7.69	17:00
21	10.47	19:50
24	13.67	22:40
27	17.31	25:30
30	21.37	28:20
33	25.85	31:10
36	30.77	34:00

2. If the pipe installation fails to meet these air test requirements, the Contractor shall determine the source or sources of leakage, and he shall repair or replace all defective materials or workmanship in accordance with these Specifications and in the presence of the Engineer. The completed pipe installation shall meet the requirements of this test.

F. WATER EXFILTRATION TEST REQUIREMENTS

1. After pipe installation and cleaning, the section of pipeline to be tested shall be prepared for testing by plugging the upper side of the downstream manhole and all openings in the upstream manhole except the downstream opening.
 - a. Where manholes are widely spaced, sections may be tested by blocking upstream end of pipe.
 - b. Where grades are slight, two or more sections between manholes may be tested at once.
2. A section of pipe prepared as above shall be tested by filling with water to an elevation 5 feet above the top pipe at the upstream end of the test section, or 5 feet above the existing groundwater elevation, whichever is greater.
 - a. Where required due to high groundwater levels, Contractor shall provide standpipe to allow for the required testing head.
 - b. The testing head may be above the ground surface in some cases.
 - c. The water shall be introduced into the test section at least 24 hours in advance of the test period to allow the pipe and joint material to become saturated.

- d. The loss in water may be determined by measuring additions of water required to maintain the specified head or by measuring the rate of fall of water level, but the level shall not be allowed to fall more than 1 foot below the initial elevation.
- 3. Should the initial test show excess leakage in a section of pipe, it is permissible to draw the water off and test the manholes that contained water.
 - a. This test shall be made by plugging all the openings in the manholes and filling with water to the same elevation as existed during the test.
 - b. The leakage from the manhole may be deducted from the total leakage of the test section in calculating the pipe leakage.
- 4. The water level shall be maintained for not less than 2 hours. Leakage shall not exceed 50 gallons per inch of diameter per mile of pipe for 24 hours. All expense of testing shall be borne by the Contractor.

G. LEAKAGE TEST ACCEPTANCE

- 1. Where the actual leakage exceeds the allowable, the Contractor shall determine the cause and remedy it before the pipeline is accepted.
- 2. For the purpose of this subarticle, a section of pipeline is defined as the length of pipe between successive manholes or special structures.
- 3. The Contractor shall correct any visible leaks in the pipeline, manholes, and special structures.
- 4. The Contractor shall dispose of all water so as not to cause a public nuisance and as approved by the Engineer.

H. MANDREL OR DEFLECTOMETER TEST

Mandrel test for flexible pipes shall also meet the requirements specified in Section 5.02.B.6.

1. FLEXIBLE PIPE LESS THAN 18" IN DIAMETER

Upon completion of the air test and before final paving is installed, the Contractor shall pull a mandrel or deflector, approved by the Engineer, through the installed flexible pipe. This test shall be performed without mechanical pulling devices. Mandrel shall not be tampered with.

2. FLEXIBLE PIPE 18" OR GREATER IN DIAMETER

At the end of each working day, or as directed by the Engineer, the Contractor shall pull an approved Mandrel or Deflector through the portion of the pipe specified by the Engineer. This section of pipe will have pipe embedment fully in place and compacted per these specifications plus at least four feet of backfill in place with a minimum of 85% relative compaction per ASTM D-1557. This shall be a preliminary test only to insure the integrity of the pipe at the time of installation. The Mandrel test for acceptance shall be performed after the air test as described in Section 12.01.D, but before final paving is installed.

12.02 TESTING BUILDING SEWERS

The Contractor shall, in the presence and under the direction of the Engineer, test the air-tightness of all building sewer lines. The test will be made between the cleanout to grade at the property line, "test-wye" or manhole and the most upstream dead-end at a point not more than five (5) feet outside the building line (See A-2 below for exception). Note that actual connection of the building sewer to the building plumbing will not be permitted until the main sewer to which it connects has been accepted for use by the District and the herein described testing has been satisfactorily completed. Entry into "live" District manholes requires an Encroachment Agreement from the District.

A. WHEN TESTED

1. In all areas, the official air test shall be made after the backfill is satisfactorily compacted, base rock installed and all other underground utilities, private and public, installed.

Preliminary air testing is strongly recommended and may be conducted by the Contractor at any time prior to the "official test".

2. Exception to 1 above is when a water test is authorized by indication on the Plans or as directed by the Engineer in the field. In these cases, the following procedure will be used: After the building sewer has been laid, and the pipe bedding installed to the satisfaction of the Engineer, the sewer shall be filled with water in the presence of the Engineer. Any and all leaks shall be found and repaired by the Contractor in accordance with these Specifications, after which the sewer trench shall be immediately backfilled.

B. EQUIPMENT

Same as for main sewers

C. PROCEDURE

Same as for main sewers

D. REQUIREMENTS

Same as for main sewers

E. MANDREL OR DEFLECTOMETER

Upon completion of the air test, the Contractor shall pull a mandrel or deflector approved by the Engineer between manholes on sewer lines six (6) inches in diameter and larger. This test shall be performed without mechanical pulling devices,

12.03 TESTING PRESSURE SEWERS

This section is intended to be used for small diameter private pressure sewers 4 inches in diameter or less with normal operating pressures of 10 psi or less. The same procedure as described in "Testing Main Sewers" shall be used except that no air loss will be permitted in time period computed for a gravity sewer of same size and length.

The pressure used will be determined by the Engineer and will be equal to 1 1/2 times the maximum pressure the sewer will be expected to withstand in actual use.

12.04 MANHOLE VACUUM TESTING

All manholes shall be vacuum tested. Vacuum test procedures and requirements shall be as follows:

1. After completion of the manhole barrels but prior to backfilling, sealing of PVC liner seams and installing grade rings, all openings in the manholes are sealed with plugs and a rubber ring "donut" type plug inserted inside the opening of the cone.
2. A small vacuum pump is attached to a hose connected to the plug and 4 psi (8 in. Hg) of vacuum applied.
3. The vacuum is permitted to stabilize at 3.5 psi (7 in. Hg) for 1 minute; then the test is begun.
4. The manhole must maintain vacuum such that no greater than 0.5 psi (1 in. Hg) of vacuum is lost during the specified test period. The specified test period is as follows:

Manhole depth, feet	Test period, minutes
0-5	4.5
5-10	5.5
10-15	6.0
Greater than 15	6.5

5. Manholes that fail the test shall be corrected as required and retested.
6. A vacuum regulator shall be provided on the vacuum pump such that no greater than 10 psi (20 in. Hg) can be applied to the manhole during the test. All manholes that do not meet the leakage test, or are unsatisfactory from visual inspection, shall be repaired to the satisfaction of the Engineer.

SECTION 13 - TELEVISION INSPECTION

13.01 INSPECTION OF MAIN SEWERS

Television inspection of sewer mains is required to be inspected with District television equipment operated by District Forces. The cost of initial television inspection is considered to be included in the permit fees. Any subsequent reinspection shall be at the cost of the permit holder.

13.02 WHEN TESTED

After final air testing and mandrel testing in conformance with Section 12.

Any portion of the sewer found not to be in conformance with these Specifications must be corrected by the Contractor. Sewers so corrected shall be re-tested and inspected in accordance with the requirements of these Specifications.

SECTION 14 - CLEANING

14.01 CLEANING

After the sewers have satisfactorily passed the tests required in Section 12, structures, backfilling and final paving are completed, the Contractor, in the presence of the Engineer, shall clean each section of the sewer in the following manner:

A. SEWERS EIGHT (8) INCHES THROUGH TWELVE (12) INCHES IN DIAMETER

High pressure hydraulic cleaning or jetting shall be used to remove dirt, grease, rocks, sand, and other materials or obstructions from the sewer line and manholes. District may clean the sewer in these sizes at Contractor's request and at his/her expense.

Sludge, dirt, sand, rocks, grease, and other solid or semi-solid material resulting from the cleaning operation shall be removed at the downstream manhole of the section being cleaned. Passing materials to downstream sewer reaches is not permitted.

The "Wayne Ball" or "ball and flush" method may be allowed with prior approval from the District Engineer.

B. SEWERS FIFTEEN (15) INCHES IN DIAMETER AND LARGER

The Engineer shall visually inspect the sewer and if in his/her opinion cleaning is necessary, the Contractor shall clean the sewer to the satisfaction of the Engineer. District may clean the sewer in these sizes at Contractor's request and at his/her expense. Clean sewer main as described in Paragraph A.

C. FOUR (4) INCH AND SIX (6) INCH BUILDING SEWERS

When in the opinion of the Engineer, the sewer is not clean it shall be flushed or otherwise cleaned so as to properly serve its intended function. Clean building sewer as described in Paragraph A.

14.02 DISCHARGE OF CLEANING WATER

Water used for cleaning the lines shall be screened to remove sediments prior to being discharged into the existing sewer system.

SECTION 15 - SITE CLEANUP AND RESTORATION

15.01 SITE CLEANUP AND RESTORATION

Surplus pipeline material, tools, remaining material from site preparation, etc., shall be removed by the Contractor, and all dirt, broken pavement, rubbish and excess earth from excavation shall be hauled to an approved disposal site provided by the Contractor and the construction site left clean, to the satisfaction of the Engineer.

Replaceable items such as fences, signs, landscaping, etc., requiring removal during construction operations must be replaced in kind by the Contractor at his/her expense or disposed of as noted on the Plans. Any driveway areas or other improvements requiring removal and/or excavation will be restored in accordance with the requirements of the city having local jurisdiction, to a condition equivalent to their original condition, and to the satisfaction of the Engineer.

A. DISTRICT CONTRACT JOBS

1. On District contract jobs, the value of and the responsibility for damage to objects that cannot be replaced in kind must be negotiated between the Contractor and the District before the removal of those objects.

B. DRIVEWAY REPAIRS

1. City of Fremont – No. 3 Rebar, 12 inches long shall be placed at 2 foot on center, a minimum of 3 inches into existing concrete. Epoxy grout if drilled.
2. City of Newark – No. 4 rebar, 24 inches long shall be placed at 4 foot on center.
3. City of Union City
 - a. Residential Driveways – No. 4 rebar, 12 inches long at 4 foot on center.
 - b. Commercial and Industrial Driveways – No. 3 rebar, 12 inches long at 4 foot on center.

SECTION 16 - REQUIREMENTS FOR ISSUANCE OF SEWER CONSTRUCTION PERMITS

16.01 PROPERTY TO BE SERVED BY USD

All property to be served must be within the District boundaries.

16.02 INSURANCE REQUIREMENTS

All main sewer and building sewer work in the District shall be performed by Contractor with current Worker's Compensation and Public Liability insurance.

16.03 LICENSE REQUIREMENTS

All Main Sewer and Building Sewer work in the District shall be performed by Contractors licensed by the State of California to perform such work except as noted in 16.03 B below. The Contractor will be required to sign necessary District forms prior to being issued a sewer construction permit.

16.04 BOND/DEPOSIT REQUIREMENTS

A. MAIN SEWER WORK

For construction, repairing or altering a "Main Sewer", a Surety Bond in a sum equal to 100% of the estimated cost of the work, guaranteeing the faithful performance of the work in accordance with the ordinances and rules and regulations of the District, including making good any defects through faulty, improper or inferior workmanship or materials arising or discovered within one (1) year after the completion of said work and acceptance thereof by the District. However, if the City or municipality within which such work is to be performed requires the filing of a Faithful Performance Bond guaranteeing making good defects through faulty, improper or inferior workmanship or materials arising or discovered within one (1) year after completion and acceptance of said work, no such bond will be required to be filed with the District.

B. BUILDING SEWER WORK BY CONTRACTOR OR OWNER

An individual or a contractor may apply for a permit for the installation or repair of a portion of a building sewer which is on private property by posting a cash deposit with the District, in accordance with the provisions of District Ordinance No. 34 or subsequent amendments thereto. The cash deposit will be refunded within 60 days of approval of work by the District.

C. PERMIT HOLDER DEPOSIT

A cash deposit will be required from the person(s) or Contractor(s) performing sewer work for possible damage to District and private facilities and additional expense for correcting poor or improper workmanship and materials. Within 60 days after final approval of the sewer per Section 20 herein, this deposit will be refunded.

D. DEVELOPER DEPOSIT

A cash deposit per "Cleanout to Grade" or "Control Manhole" may be required from the Developer prior to issuance of a sewer construction permit. District construction unit prices are used for determination of deposit. Within 60 days after final approval of the sewer per Section 20 herein, this deposit will be refunded.

16.05 FEES AND CHARGES

All fees and charges levied by the District are payable before issuance of a sewer construction permit unless otherwise noted herein. Except for any special fees or charges, all types are noted below:

A. ANNEXATION FEE

Process Application Fees and Annexation Fees are payable by all Developers or Property Owners for land not within the District boundaries per current District Ordinance No. 20 and 25 series.

The Process Application Fee and the First Installment of the Annexation Fee is due and payable upon request for annexation. The request must be signed by the Owner of the property and be accompanied by a copy of the Title Report and a location drawing of the property to be annexed.

The applicant is required to provide, at his/her expense, all necessary maps and descriptions required for approval by the Local Agency Formation Commission along with digital copies of all maps and descriptions in accordance with Section 16.09, Minimum Requirements for Digital Submittal. These documents are submitted to the District for transmittal to Alameda County for review and ultimately to the Commission for their review and approval.

A building sewer construction permit may not be issued, or construction work may not be accepted, until the property is annexed to the District. The annexation process may take up to 6 months or longer.

B. DOCUMENT REVIEW FEE

Per current District Ordinance No. 34 Series. Payable for the review of documents such as an easement or an encroachment agreement.

C. STUDY FEE

Per current District Ordinance No. 34 Series. Payable for the costs of a study of the effects of the proposed development.

D. PLAN REVIEW FEE

Plan review fees are payable by all Developers per current District Ordinance No. 34 Series. District construction unit prices are used in the computation.

E. INSPECTION FEE

Inspection fees are payable by all Developers and/or permit holders per current District Ordinance No. 34 Series. District construction unit prices are used in the computation.

F. CAPACITY CHARGES

Capacity charges are payable by all Developers and/or Owners per current District Ordinance No. 35 Series.

G. FRONTAGE FEE

Frontage fees are payable by all Developers proposing to connect directly to District financed main sewers per current District Ordinance No. 30 Series.

H. MATERIALS AND SERVICE FEE

Those fees, per current District Ordinance No. 34 Series, that are payable to the District for materials furnished by the District and work done by District Forces in accordance with the construction requirements as shown on approved Plans and in the Standard Specifications. (See Section 18.02 herein).

I. REIMBURSEMENT FEE

Reimbursement fees are payable by Developers per current District Ordinance No. 9 Series, connecting to the frontage of main sewers installed by others, or tributary to the area, which are subject to reimbursement. Conditions and requirements of specific Reimbursement Agreements may apply.

J. WASTEWATER DISCHARGE PERMIT FEE

Per current District Wastewater Discharge Ordinance No. 36 Series. Payable by users who are required to obtain a Wastewater Discharge Permit for discharge on non-domestic type wastes.

K. FAILURE-TO-OBTAIN-A-PERMIT FEE

Per current District Ordinance No. 34 Series. Payable by the person(s) or Contractor(s) performing sewer work without a valid USD permit.

16.06 SUBMISSION OF DATA FOR MAIN SEWERS

A. PRELIMINARY PLANS

Three (3) sets of Preliminary Improvement Plans, Development Plans and Maps (tract map, parcel map, etc.), prepared by a Registered Civil Engineer in the State of California, must be submitted to the District. Standard size sheet of 22" x 34", 24" x 36", or 30" x 42" with a scale of 1"=40' or 1"=50' and profile to 1"=4' or 1"=2' must be used unless otherwise authorized by the Engineer. These will be reviewed by the Engineer and one (1) corrected copy returned to the applicant.

A digital copy of all preliminary plans shall be submitted in one (1) drawing file in accordance with Section 16.09, Minimum Requirements for Digital Submittal.

B. FINAL PLANS

After corrections are made, the original drawing can be signed by the Engineer. After all approving Agencies have signed the Plans, one (1) Plan of the Development drawn to a scale of 1"=100 and two (2) sets of Final Improvement Plans, Development Plans, Final Maps and Certificate Sheet suitable for microfilming must be furnished to the District. Unless otherwise authorized by the Engineer, these signed plans must be submitted to the District prior to issuance of a main sewer construction permit.

A digital copy of all final plans shall be submitted in one (1) drawing file in accordance with Section 16.09, Minimum Requirements for Digital Submittal.

C. ESTIMATE OF THE QUANTITY OF MATERIAL

One (1) copy of the final estimate of the quantities of the materials for the sanitary sewer system shall be submitted to the District prior to the issuance of a main sewer construction permit.

D. EASEMENT REQUIREMENTS

A main sewer authorized by the Engineer to be constructed on private property may require that a Sanitary Sewer Easement be granted to the District. It must be prepared by the Grantor on Standard District Forms properly signed and notarized. The easement must be defined on a Legal Description and Plat prepared by a licensed surveyor, separate from the tract or parcel map. A Title Report shall also be submitted with the easement documentation. A digital copy of the Legal Description and Plat shall be submitted in accordance with Section 16.09, Minimum Requirements for Digital Submittal. After approval by the District, it shall be recorded by the Design Engineer with the Alameda County Recorder. Once it is recorded, a copy of the recorded document will be furnished to the District. This must be accomplished prior to acceptance by the District of the sewer that lies within the easement.

E. QUITCLAIM REQUIREMENTS

When a Sanitary Sewer Easement is to be quitclaimed, a Legal Description and Plat shall be prepared by a licensed surveyor and submitted to the District with a Title Report. After the documents are reviewed and accepted by the District, the District will prepare a Quitclaim Deed and submit it to the Alameda County Recorder. Once it is recorded, a copy of the recorded document will be furnished to the District.

F. FIELD CHANGES

Two (2) sets of Plans and one (1) digital copy in accordance with Section 16.09, Minimum Requirements for Digital Submittal showing field changes proposed must be submitted to the Engineer for approval prior to the work being started.

16.07 SUBMISSION OF DATA FOR BUILDING SEWERS

Submittal requirements for District Plan Check for Building Sewers prior to approval of plans are shown in (A), (B), (C) and (D) below and in Section 16.09 – Minimum Requirements for Digital Submittal. (Does not apply to single family residences unless required by the Engineer).

After plan check is completed by the District, one (1) set of the checked submittals will be returned to the applicant for resubmittal of the required number of revised sets and digital files.

Plan submittals must have information listed below shown on original reproducible tracings to scale with prints submitted there from. Plan must be drawn to adequate scale, with north arrow, on a large enough sheet (11" x 17" min., 30" x 42" max.) and be suitable for microfilming. The minimum scale will be 1"=50' unless otherwise authorized by the Engineer. Digital files shall be in one (1) drawing file and shall be submitted in accordance with Section 16.09 – Minimum Requirements for Digital Submittal.

Name, address, telephone number and title of company or person preparing the plan must be clearly shown on the submitted plans.

Any office or field change from final approved construction plans must be re-approved by the District and may require resubmittal of revised plans and digital CADD files.

A. SITE PLANS

Four (4) copies of Site Plan plus one (1) copy of the digital CADD file. The Site Plan must show (unless otherwise permitted by the Engineer):

1. Public street and property dimensions.
2. All existing and proposed buildings, labeled with general usage and plotted accurately on site.

3. Areas to be paved and those left unpaved clearly marked.
4. Ground floor and pad elevations of all buildings.
5. Finish ground elevations at key points and curb elevations of public street.
6. Existing ground elevations where cover over proposed sewer is to be less than two (2) feet at time of construction.
7. Existing USD manhole number and rim elevation of nearest existing public sanitary sewer manhole in the street drawn to scale or with its distance shown to the site's nearest downstream property corner and the new sewer connection.
8. Existing and proposed utilities plotted correctly and labeled.
9. The proposed sanitary sewer must be shown with size, material, minimum slope, invert elevation to nearest 0.1 foot at connection to building plumbing (building drain).
10. Show invert elevations at all grade breaks.
11. Show invert elevation of all storm sewers at sanitary sewer crossings.
12. Structures proposed such as cleanouts, manholes (with rim and invert elevations), grease clarifiers, etc., labeled and shown on the plan.
13. Plumbing fixture unit count shown for each building.

B. FLOOR PLANS

Two (2) copies of Floor Plan. (Commercial and Industrial Only). Floor Plan must show area layout and proposed usage of various areas of building.

C. PLUMBING AND / OR MECHANICAL PLANS

Two (2) copies of Plumbing and/or Mechanical Plan. (Commercial and Industrial Only). Plumbing and/or Mechanical Plan must show interior plumbing (building drain) and the fixtures to be served, all properly labeled as to function.

D. CUT SHEETS

Receipt by District of three (3) sets of cut sheets on Standard District Forms prepared by a Registered Civil Engineer or Land Surveyor. Cut Sheets are required per Section 19.02 herein or when so stated by District on approved plans.

E. WASTE DISCHARGE REPORT/PERMIT

One (1) copy of either a Waste Discharge Report or Permit Form as required by the District Pretreatment Ordinance and Technically Based Local Limits (Ordinance No. 36 Series). (Commercial and Industrial Only). After review of these submittals, it may be necessary for the owner or his/her representatives to meet with the Engineer prior to approval of plans.

F. EASEMENT REQUIREMENTS

When a private easement (across adjoining property) is required for installation of a building sewer, a copy of the recorded document must be submitted to the District prior to issuance of a sewer construction permit.

G. CITY BUILDING PERMIT

Prior to issuance of the sewer connection permit, it shall be necessary for the applicant to provide evidence of the necessary Building Permits from the appropriate jurisdiction.

16.08 ENCROACHMENT AGREEMENT

Whenever it will be necessary for workers, material, equipment or excavated trench material to be on real property not included in any deed, grant, easement or the like, an encroachment agreement, license or other permission in writing must be submitted to the District prior to issuance of a sewer construction permit.

16.09 MINIMUM REQUIREMENTS FOR DIGITAL SUBMITTAL

The digital file submitted shall be one (1) drawing file in .dwg format containing all layers, illustrating all improvements within the project area, including all existing and proposed offsite improvements, tract boundary, street centerlines, outfall sewers, etc. in model space. No drawing entities shall be placed on layer "0". Descriptive information (i.e. text) shall not be included in the same layer as the feature, and should be added as a separate layer. Submitted digital files shall be in accordance with the Guidelines for Digital Submittal, or as otherwise approved by USD.

All maps, sanitary sewer easements (except those for private sewer or laterals), annexation maps and associated plans and drawings shall be submitted in digital format. Digital submittals shall be submitted with each plan check submittal and shall conform to the following:

A. FILE FORMAT

1. AutoCAD (DWG)

B. MEDIA DELIVERY OPTIONS

1. Compact Disk (CD)
2. Flash Drive
3. FTP site

C. MISCELLANEOUS

1. Each submittal shall be labeled with the project name and/or map number (tract, parcel map, annexation number, etc.), project number, company name, address and contact phone number.
2. All drawing shall use the California State Plane Coordinate System – Zone III in units of feet. The horizontal datum shall be the North American Datum of 1983 (NAD83) and units of feet and the vertical datum shall be the North Geodetic Vertical Datum of 1929 (NGVD29) in units of feet, or other ties as authorized by USD.
3. Each drawing shall contain at least two survey control points.
4. All drawings shall have a North orientation of vertical (i.e. toward the top of the page).
5. All digital line work must be geometrically correct, without inappropriate breaks. Polygon features drawn as polylines must properly close without gaps.
6. All externally referenced files used shall be "bound" into the drawing file and submitted as one drawing package.
7. Compressed files are acceptable only when using the eTransmit function in the AutoCAD program.

D. LAYERING

1. Layers shall contain, but not be limited to, the layers in the table named AutoCAD Layering Conventions. This table is for reference only and is not to be considered as a complete list of available layer names.
2. Layer colors, line types and line weights shall be left to the discretion of the engineer.

AutoCAD Layering Conventions For Submission of Developer Projects

Digital files submitted shall be based on accurate coordinate geometry calculations and the NAD83 State Plane Coordinate System (Zone III) and NGVD29. USD requires that the digital file being submitted combines all elements of individual improvement plan sheets for the proposed subdivision along with the elements of the Parcel or Tract Map into a single CAD formatted drawing. This drawing shall contain (but not be limited to) the following layers.

Layer Group	Layer Name	Layer Type	Description
Default	0		AutoCAD default layer
Misc.	BORDER		Contains features such as north arrow, vicinity map, location map, title of plans, signature blocks, standard title block, scale bar, legend, page borders, etc.
Misc.	DETAILS		Standard construction details of jurisdictional agencies.
Misc.	TXT	Text	Layer containing general and construction notes, sheet index, special condition notes, bench mark description, etc.
Landbase	BLDG	Polygon	Building foot prints
Landbase	BLDG - SETBAK	Line	Building setback line
Landbase	BM	Point	Benchmark
Landbase	BNDRY	Polygon	Closed polygon of Tract or Parcel Map boundary
Landbase	CL	Line	Centerline - public streets
Landbase	CLPVT	Line	Centerline - private streets
Landbase	CONTOURS	Polyline	Finished contour lines (grading plans) with elevation attribute (Z value)
Landbase	ELEV	Point	Finished spot elevations (grading plans) with elevation attribute (Z value)
Landbase	EP	Line	Edge of pavement (i.e. lip of gutter or edge of pavement in the case of no curb and gutter construction)
Landbase	ESMT*	Line or Polygon	Easements not related to utilities, such as emergency vehicle access, pedestrian walkways, landscape maintenance, etc.
Landbase	FOC	Line	Face of curb
Landbase	LOT	Text	Text indicating lot number
Landbase	LP	Line	Lip of gutter
Landbase	MON	Point	Survey monuments
Landbase	MONL	Line	Monument line
Landbase	PARCEL	Polygon	Closed polygons of each parcel or lot
Landbase	ROW	Line	Public rights-of-way
Landbase	ROWPVT	Line	Private rights-of-way
Landbase	SL	Point	Street light poles
Landbase	SLCNDT	Line	Street lighting electrical conduit including pull boxes, service meters, etc.
Landbase	STRIPE	Line	Street striping and pavement markings

Layer Group	Layer Name	Layer Type	Description
Landbase	STSIGN	Point	Street/traffic signs
Landbase	SW	Line/Polygon	Sidewalks including handicapped ramps, driveways, back of walk and meandering walks
Landbase	TOPO		All existing topological features (maybe submitted as a separate drawing file)
Landbase	TS	Point	Traffic signal fixtures/poles
Landbase	TSCNDT	Line	Traffic signal conduit including loop detectors, pull boxes, control cabinets etc.
Landscaping	LSIRR	Line	Public landscape irrigation (i.e. landscape maintenance districts) including service line from public main, water meters, valves, backflow and pressure regulating devices, control valves, etc.
Landscaping	LSTREES	Block insert	Street tree plantings that will be maintained by jurisdictional agency
Landscaping	LSPLANT	Block insert	Bushes, shrubs, groundcover and all other organic landscape material
Landscaping	LID	Polygon	Landscape Improvement Dist.
Landscaping	LLD	Polygon	Landscape/Lighting Dist.
Landscaping	LSMOW	Line or Polygon	Concrete mow strips
Misc.	* TXT	Text	Layers containing text associated with various other layers where "?" denotes name of layer (e.g. sanitary sewer text would be named SSTEXT).
Misc.	*TIC	Point	Tics at all beginning and ending curves for all utilities, easement boundaries, street centerlines (public and private), tract or parcel boundary, lot boundaries, etc. where "?" denotes name of feature or utility (e.g. CLTIC, SEE NOTE 1).
Sewer	SS	Line	Sanitary Sewer mains
Sewer	SSLAT	Line	Sanitary Sewer laterals
Sewer	SSMH	Point	Sanitary Sewer manholes
Sewer	SSESMT	Polygon	Sanitary Sewer easements
Stormdrain	SDCI	Block insert	Storm drain curb inlets
Stormdrain	SDESMT	Polygon	Storm drain easements
Stormdrain	SDCMP	Line	Storm drain corrugated metal pipe
Stormdrain	SDDI	Block insert	Storm drain drainage inlet
Stormdrain	SDMH	Block insert	Storm drain manhole
Stormdrain	SD	Line	Storm drain
Stormdrain	SDVLT	Block insert	Storm drain vault
Stormdrain	SDFILT	Point	Storm drain filtering device
Stormdrain	SDMH	Point	Storm drain manholes and/or junction boxes
Utility	ELEC	Line	Electric utility line including power poles, underground conduit, pull boxes, vaults, manholes, ducts banks, etc.

Layer Group	Layer Name	Layer Type	Description
Utility	ESMT*	Polygon	Easements where "?" denotes jurisdiction or purpose (PG&E, PUE, EVAE, etc.). Each utility shall have a separate layer (i.e. ESMTPG&E, ESMT PUE, etc.)
Utility	GAS	Line	Gas utility lines including service lines, valves, etc.
Utility	TELECOM	Line	All telecommunications utilities including (but not limited to) MCI, PacBell, Sprint, GTE, etc. showing location of underground lines, manholes, pullboxes, junction boxes, utility poles, duct banks, etc. Line type shall include name of utility.
Utility	CATV	Line	Television, cable TV showing location of underground lines, manholes, pullboxes, duct banks, utility poles, etc.
Utility	UTILITY	Line	Conduit layout of all utilities not specifically designated in this schema. Each utility shall have a separate layer named for the utility and shall show all appurtenant facilities
Water	W	Line	Water mains
Water	WARV	Point	Air release valve
Water	WBV	Point	Butterfly valve
Water	WBO	Point	Blow off valve
Water	WESMT	Polygon	Waterline easements
Water	WFH	Point	Fire Hydrants
Water	WFHV	Point	Fire Hydrant valves
Water	WSVC	Line	Water service lines
Water	WM	Point	Water meters
Water	WV	Point	Water valves

NOTES:

- Centerline intersection tics not required on sanitary sewer mains.
- Names for layers containing existing features shall be prefixed with "EX". For example, the layer containing existing sewer mains shall be named EX SS.
- Names for layers containing easements other than water, sewer and storm drain shall be prefixed with "ESMT". For example, the layer containing Emergency Vehicle Access Easements shall be named "ESMT EVAC".
- Name for layers containing temporary improvements or structures shall be prefixed with "TEMP" according to the type of improvement or structure. For example, the layer containing future curb would be named "TEMP FOC".
- Any repeatable feature such as sewer manholes, storm drain manholes, streetlight poles, tress, bushes, etc. may be designated with an appropriate symbol or AutoCAD block.

SECTION 17 - GREASE AND OIL COLLECTION SYSTEMS AND ADDITIONAL CONNECTION REQUIREMENTS

17.01 GENERAL

For the purpose of this specification section, a Food Service Establishment is any establishment primarily engaged in activities of food preparation, food service, or the making available for consumption foodstuffs and that use one or more of the following preparation methods: cooking by frying (all methods), baking (all methods), grilling, sautéing, rotisserie cooking, broiling, smoking (all methods), boiling, blanching, roasting, toasting, or poaching. Also included are infrared heating, searing, barbecuing, and any other food preparation activity that produces a heated food product, whether served on or in washable and reusable plates or containers or those of a disposable type. Food Service Establishments include those establishments or facilities where foodstuffs are served or prepared for consumption or sale. This includes but is not limited to cold dairy and frozen foodstuffs preparation and serving establishments that prepare or serve drinkable or edible products.

All Food Service Establishments shall be equipped with grease interceptors and/or grease traps designed to limit the discharge of grease and oil to the District's sewer system as required in Union sanitary District Ordinance 38. The size and type of Food Service Establishment shall dictate the size of the grease trap or grease interceptor required. The minimum sizes specified are subject to review and approval by the District Engineer.

17.02 GREASE INTERCEPTORS

Most establishments shall have an outside grease interceptor installed with the minimum liquid capacity of 1500 gallons.

Designation as a grease intensive Food Service Establishment shall be as determined by the District Engineer. In given situations, or applications, the next larger size may be required due to the nature of the usage. Grease interceptors shall be two compartment interceptors as shown in the Standard Details and shall be manufactured by Jensen Precast, or approved equal.

17.03 GREASE TRAPS

Non-grease intensive Food Service Establishments shall typically include delicatessens, bakeries/donut shops, ice cream/frozen yogurt shops, pizzerias and other Food Service Establishments with limited cooking that do not contain deep fryers, grills or other cooking equipment.

Designation as a non-grease intensive Food Service Establishment shall be as determined by the District Engineer. In most cases, a 200 lb. grease trap will be sufficient for food service establishments that only make sandwiches, bake pizza or are donut shops, which have no other additional food service preparations or cooking onsite. Grease Traps shall have two compartments with acid resistant coated interior and an exterior fabricated steel device as shown in the Standard Details and shall be manufactured by Zurn, or approved equal.

17.04 CONNECTIONS

All kitchen area mop, pot and prep sinks shall be connected to the grease trap or interceptor. All Kitchen floor drains shall be connected to the interceptor.

17.05 DISHWASHERS

Dishwashers drainage shall not be connected to any grease trap or grease interceptor.

17.06 GARBAGE DISPOSALS

Garbage disposals, grinders or other similar devices are prohibited to be installed at all Food Services Establishments.

17.07 CAR WASH AND INDUSTRIAL VEHICLE CLEANING FACILITIES

A Car Wash facility is any commercial enterprise operated for profit, and open to the public, for the purpose of cleaning, washing, waxing, vacuuming, polishing, or detailing cars. Car service facilities, including car dealerships, with any washing activities as part of their business are also considered car wash facilities. Industrial Vehicle Cleaning facilities are industrial/commercial facilities with wash racks or wash pads that clean vehicles, equipment, or a combination thereof.

Sanitary sewer connection and discharge requirements shall be as determined by the District Engineer. If wastewater from the facility must discharge to the sanitary sewer, then Union Sanitary District required pretreatment equipment must be installed. A car wash pad must be designed and constructed to prevent storm water from entering the work area, and to prevent run-off from the wash water generated during the car wash process. Facilities that wash cars and/or equipment onsite as part of their business shall have a 1500-gallon sand oil water interceptor and/or 1500-gallon clarifier installed in series.

17.08 TRASH ENCLOSURES

Trash enclosure connections to the sanitary sewer are limited to food service establishments only and are not permitted for residential developments. All trash enclosures approved to be connected to the sanitary sewer require the installation of a grease interceptor. Trash enclosures shall be designed such that no surface water outside the trash enclosure will drain into the trash enclosure area. The size of the grease interceptor shall be as determined by the District Engineer.

17.09 TRASH COMPACTORS

Trash compactor connections to the sanitary sewer are limited to those serving food service establishments only. The size will be as determined by the District Engineer. Trash compactor enclosures must be designed and constructed to prevent run-on to, or runoff from the area from entering the sanitary sewer connection.

17.10 PARKING STRUCTURES AND LOTS:

Sanitary sewer connections from parking structures and lot floor drains are not allowed.

17.11 VEHICLE EQUIPMENT REPAIR AND MAINTENANCE SHOPS

Sanitary sewer connections from tanks, containers, or sinks, used for motor vehicle parts cleaning or rinsing are not allowed. All parts cleaning solutions or solvents must be captured and hauled off site for proper disposal or recycling. Sanitary sewer connections from vehicle repair or maintenance facility floor drains are not allowed.

17.12 FUELING STATIONS (RETAIL, WHOLESALE AND PRIVATE)

Sanitary sewer connections from fueling areas are not allowed.

17.13 TRENCH DRAINS:

The use of the trench drains is restricted and will be evaluated by District Engineer on a case by case basis. Applicant must demonstrate other alternatives would not be functional.

17.14 SWIMMING POOLS, SPAS AND FOUNTAINS

Direct connections from swimming pools, spas, and fountains to the sanitary sewer are prohibited.

All filter backwash media shall be prevented from entering the sanitary sewer system. Wastewater from the backwash of Diatomaceous Earth Filters shall pass through a solids separation system prior to discharge to the sanitary sewer system. Wastewater from the backwash of sand filters shall pass through a sump or similar device to capture any sand prior to the discharge to the sanitary sewer system. The discharge of pool, spa and/or fountain water is restricted to a flow rate of twenty gallons per minute (20 gpm).

Any outdoor shower area with a drain to the sanitary sewer shall be bermed, raised and/or sloped to prevent the introduction of storm water. The outdoor shower area shall be roofed or equipped with a cover to prevent rainwater from entering the sanitary sewer system.

17.15 OUTSIDE UTILITY EQUIPMENT AREAS

All discharges of polluted water from outside utility equipment areas (roof ventilation systems, boiler blowdown, etc.) shall be discharged to a raised floor sink or similarly raised floor drain to prohibit the discharge of unpolluted (rainwater, storm water run-off) to the sanitary sewer.

17.16 ELEVATOR AND ESCALATOR SUMPS

Sanitary sewer connections from indoor and outdoor elevator and escalator sumps are not allowed.

17.17 CLAY, CERAMIC, GRANITE, MARBLE, GLASS GRINDING AND STONE CUTTING FACILITIES

A trap/sump or other pretreatment device as specified by USD shall be required for all classrooms, manufacturing, fabricating, and any other commercial facility that discharges wastewater containing significant amounts of clay, ceramic, marble, stone, grit, silt or other similar material residuals.

SECTION 18 - MISCELLANEOUS MAIN SEWER AND BUILDING SEWER REQUIREMENTS

18.01 REPAIR OR RELOCATION OF EXISTING MAIN SEWER OR APPURTENANCES

Repairs or relocations of existing main sewers or appurtenances required by reason of damage, or conflict, will be performed by the District or by Contractors engaged by the District, unless authorized otherwise through a USD approved encroachment permit.

Before any such work is started by District Forces, a standard District "Work Order" must be signed by the party or his/her agent, responsible for payment, authorizing the work by District Forces and agreeing to pay charges incurred. Upon completion of work, the District will bill the party responsible for payment thereof.

In event any of the District's existing sewer mains, manholes or other appurtenances are damaged during construction or repair, and the District Engineer, in his/her sole discretion, determines that a threat to the District's system, the District may employ District Forces or other Contractors to take the necessary steps to repair such damage. In such event, the owner of the property involved, the General Contractor and the Sewer Contractor shall jointly and severally be liable for the District's necessary repair cost. The District may withhold acceptance of construction and reporting the same to the Governing Municipality until payment of the District's necessary repair costs or other financial arrangements to compensate the District are made. No "Work Order" must be signed in order for the owner or any of the owners, agents or contractors to be responsible for repair costs sustained by the District in such an emergency situation.

18.02 CONNECTION OR ADJUSTMENTS TO EXISTING MAIN SEWERS OR APPURTENANCES

Except for work on sewers not yet accepted by the District, all work on existing main sewers shall be done by District Forces, including:

- A. Splice into Main Sewer (See Section 23.08).
- B. Stub into Existing Public Manhole (See Section 22.20)
- C. Rechanneling Existing Public Manhole.
- D. Installation of Plywood Cover (False Bottom) Over Existing Public Manhole Base Block.
- E. Adjust Manhole Casting to Grade

The charge for said work by District Forces is based on the District's current rate schedule. A sewer "work Request Form" signed by the Contractor shall be submitted and the charges as estimated by the District paid prior to issuance of a sewer construction permit. Refunds or additional billing will be made after completion of the work and will be based upon actual costs incurred.

The exact time that the work is to be done by District Forces must be arranged by the Contractor with the District Office (an inspector or an inspection coordinator) at least 48 hours (2 business days) in advance preceding the work day. Messages or voicemails are not acceptable.

Work to be done by District Forces that, due to its' unusual character, is not listed on the rate schedule will be billed after the work is accomplished on the basis of actual costs. Before any such work is started by District Forces, a standard District "Work Order" must be signed by the party responsible for payment, authorizing the work by District Forces.

All work done by District Forces must be paid, or appropriate arrangements satisfactory to District made, prior to District accepting construction and reporting acceptance and approval to the Governing Municipality.

18.03 REPAIR, RELOCATION OF OR CONNECTION TO EXISTING BUILDING SEWERS

Except as noted below, all such work will be done by private Contractors. Minimum inspection fees must be paid and a sewer construction permit issued prior to start of work and all work must be done per District Specifications and subject to District inspection.

In the event damage necessitating repair or relocation of existing building sewers is caused by a public agency, utility company or their respective agents, the work will be done by District Forces.

In these cases, before any such work is started by District Forces, a standard District "Work Order" must be signed by the party or his/her agent, responsible for payment, authorizing the work by District Forces and agreeing to pay charges incurred. Upon completion of the work, the District will bill the party responsible for payment thereof.

In event repair work is deemed necessary by the District, in its sole discretion, to alleviate a threat to the District's sewer system, and no "Work Order" is signed by the party or agent responsible for payment, or emergency repairs are undertaken by District, no approval and acceptance of construction will be issued by District until the reasonable cost of repairs are paid or arrangements appropriate to District are made for such reimbursement.

18.04 USE OF EXISTING BUILDING SEWERS

(See Section 11.05 of the Standard Specifications for requirements).

18.05 ABANDONMENTS

(See Section 11.10 of the Standard Specifications for requirements).

18.06 NUMBER OF BUILDING SEWERS REQUIRED

In accordance with current District Ordinance, the following excerpts are quoted:

"Every building in which plumbing fixtures are installed shall be separately and independently connected to a main sewer or septic tank."

"Where there is more than one building on a lot and where the lot cannot be subdivided under the provisions of any local regulations, a separate building sewer will not be required." For example, "Service buildings, such as a garage, servant's quarters, power house, or other like buildings where required as an adjunct to and to be used in connection with a residence, public buildings, or commercial plant, may be connected to the building sewer serving the main building."

SECTION 19 - REQUIREMENTS PRIOR TO START OF CONSTRUCTION

19.01 PERMIT

The Contractor must have in his/her possession a valid sewer construction permit issued by the District for all sewer construction. Note that no permit will be issued for connection to, or extension of, any sewer not accepted by the District. See current District Ordinance for inspection fee penalty for starting work without a valid sewer construction permit.

No sewer construction permit will be issued by District until the applicant has a valid building permit issued by the Governing Municipality, unless the applicant is a public agency immune from building permit requirements.

Construction permits will be valid only as long as the building permit issued by the Governing Municipality remains valid. Upon the expiration of the building permit issued for such construction, or issuance of a new parcel map or subdivision map, for the construction on same parcel, additional connection charges will be based on any increase subsequent to the initial charges. Capacity charges along with plan checking and other administrative charges, must be paid prior to issuance of a new sewer construction permit.

19.02 STAKING AND CUT SHEETS

(See Sections 22.07 and 23.06 herein for stake location requirements).

Before start of any sewer construction requiring staking, three (3) copies of cut sheets on the Standard District Form must be submitted to the District (Fax transmissions shall not be accepted). They will be checked within twenty-four (24) hours and one (1) approved copy will be furnished to the Contractor for use in construction. Stakes must not be marked with cuts prior to District approval of cut sheets.

A. DISTRICT PROJECTS

The District will provide all construction stakes and prepare all cut sheets necessary for District Projects.

B. MAIN SEWERS

A registered Civil Engineer or Land Surveyor engaged by the Developer will be responsible for setting stakes and preparing cut sheets.

C. BUILDING SEWERS

A Registered Civil Engineer or Land Surveyor engaged by the Developer will be responsible for setting stakes and preparing cut sheets for all "Townhouse" type projects and any other residential, commercial or industrial developments that in the opinion of the Engineer requires a good control of sewer grade and alignment due to flat slopes, other utilities, and/or circuitous routing.

When such staking and cut sheets are required it will be so indicated on the Plans by the Engineer, prior to approval of Plans. If in the opinion of the Engineer, construction requiring stakes have been set, a field check must be made by the Developer's Engineer to verify the accuracy of the stakes.

19.03 INSPECTION

A. DURING NORMAL DISTRICT WORKING HOURS

A request for inspection must be made to the District Inspector or an inspection coordinator a minimum of 24 hours (one full business day) prior to the start of any sewer construction during normal District working hours. Inspection appointments must be confirmed by the District Inspector or inspection coordinator. This notification applies not only to starting new work, but also to restarting work which has been temporarily halted.

B. OUTSIDE OF NORMAL DISTRICT WORKING HOURS

The District Inspector or an inspection coordinator must be notified 48 hours (two business days) prior to the start of any sewer construction outside of normal District working hours and a request must be made for inspection. Messages or voicemails are not acceptable. All inspection performed during these hours shall be reimbursed to the District at the rates in effect at that time, and as part of the notification requires the signing of a "Work Request Form" prior to any inspection of work being performed. Payment of the inspection charges must be made upon receipt of the billing from the District. The current rate for this service can be determined by contacting the District Office. A minimum of four hours overtime will be charged for any inspections requested for weekends or District holidays. Overtime will be charged in one-hour increments for inspection requested in addition to the normal eight-hour working day.

SECTION 20 - APPROVAL AND ACCEPTANCE OF CONSTRUCTION

20.01 MAIN SEWERS

After all construction of the main sewer has been completed to the satisfaction of the Engineer, all fees and charges paid, all easements, annexations, and maps have been recorded and copies have been given to the District, and all other requirements have been met, the main sewer can be accepted as a public sewer by the District.

20.02 BUILDING SEWERS

After all construction of the building sewer has been completed to the satisfaction of the Engineer, all fees and charges paid, and all other requirements met, the building sewer can be approved by the District. This approval of construction will be indicated by the notification of the City in which the work occurred.

20.03 PAYMENT

In no event will a building or main sewer be approved and accepted, and so reported to the Governing Municipality, until all fees and charges are paid, including charges for work done by District Forces and repairs undertaken by District as provided in Sections 11 and 18.

SECTION 21 - SPECIFICATIONS AND DETAILS

21.01 MATERIALS AND METHODS OF CONSTRUCTION

Materials and methods of construction will be as required in the Standard Specifications, and on District-Approved Plans.

21.02 CONSTRUCTION DETAILS

Construction Details will be required on Standard Details and on District-Approved Plans.

SECTION 22 - DESIGN AND POLICY STANDARDS FOR MAIN SEWERS

22.01 PIPE MATERIALS

Limited to Vitrified Clay Pipe (VCP), Poly Vinyl Chloride Pipe (PVC, SDR 26 or less), High density Polyethylene pipe (HDPE, DR 21 or less) and Ductile Iron Pipe (DIP, Pressure Class 250 or greater with non-corrosive lining) all as listed in the Standard Specifications.

22.02 PIPE MATERIAL CHANGES

Size or pipe material changes are not allowed between any two manholes.

22.03 SIZE AND SLOPE

Minimum pipe size is eight (8) inches in diameter. The sewers should be designed as steep as possible with due consideration for service area and other controls. Unless otherwise permitted by the Engineer, the slopes shown in the following table will be minimum for sewer sizes shown:

Pipe Diameter, inches	Minimum Slope, feet per foot
8	0.0034
10	0.0026
12	0.0020
15	0.0015
18	0.0012
(Larger sewer sizes shall have a minimum slope as specified by the Engineer).	

Sewer design will be based on District Master Plans as to ultimate total volume of flow expected from the tributary area. Sewers are designed to flow full at peak flows. Peaking factors are based on location and expected future conditions. (Manning formula with $n = 0.013$ will be used for all pipe materials).

22.04 ALIGNMENT

Sewer shall be laid in a straight alignment except that horizontal curved sewers may be used when located within a defined street area and concentric with center of street unless otherwise approved. Minimum curve radius shall be in accordance with Section 7.01.F.

22.05 CROSS CONNECTION

Sewers will be required to be designed cross-connected except in dead end streets.

22.06 GRADE

Sewer shall be laid on a straight grade except that vertical curved sewers may be used only in specific instances when so authorized by the Engineer. Conditions to be met will be specified in each instance by the Engineer.

22.07 GRADE STAKES

Unless otherwise required by the Engineer, sewer construction stakes will be located at 50 feet maximum intervals except that on horizontal curves and on sewers with a slope flatter than 0.0034 feet per foot the maximum spacing will be 25 feet. The maximum spacing of construction stakes on vertical curves shall be 10 feet.

The stakes shall be offset from the center line of the sewer at a safe distance from the edge of the trench but in no case greater than 10 feet unless authorized by the Engineer. The stakes will be marked with off-set distance and station only.

22.08 DESIGN DEPTH

To avoid interference between building sewers and other utilities, the sanitary sewer main should be designed, when possible, at a minimum of 6.5 feet below finished grade.

22.09 MINIMUM PIPE COVER

Minimum permitted cover in inches over outside top of pipe bell to top of "backfill" or to existing ground at time of sewer installation, whichever is lower, is shown in the table on Standard Detail No. 18B.

Cover requirements for other pipe materials and sizes will be based on their strength characteristics as approved by the Engineer.

22.10 TRENCH INTERSECTIONS

Avoid non-perpendicular crossings/intersections between the sanitary sewer and other underground utilities.

22.11 HORIZONTAL UTILITY CLEARANCE

A minimum horizontal clearance of five (5) feet should be maintained between the sewer main and adjacent underground utility mains and concrete curbs. A minimum horizontal clearance of ten (10) feet should be maintained between the sewer main and parallel water mains, unless approved in advance by the Engineer.

22.12 CROSSING STORM DRAINS

A. VITRIFIED CLAY PIPE (VCP)

Whenever a VCP pipe main or building sewer crosses over a storm drain, regardless of the vertical clearance, or under a storm drain with less than six (6) inches vertical clearance, span the storm drain trench with single length of PVC SDR 26 Pipe, and extend a minimum distance on each side of the trench per Standard Details.

B. FLEXIBLE PIPE

Whenever a flexible pipe main or building sewer crosses over a storm drain, a single length of similar flexible pipe may span the storm drain trench. Pipe couplings are not allowed within the storm drain trench.

If the strength characteristics of the flexible pipe is exceeded, the span of the storm drain trench shall be made with a single length of PVC SDR 26 Pipe, and extend a minimum distance on each side of the trench per Standard Details. Conditions to be met will be specified in each instance by the Engineer.

22.13 CROSSING WATER MAINS

No main or building sewer shall be installed over a water main where the vertical clearance is less than twelve (12) inches. The water main shall be spanned with a single length of PVC Pressure Pipe (SDR 14) per Standard Details.

No main sewer shall be installed under a water main with less than twelve (12) inches of vertical clearance.

22.14 STRUCTURE LOCATIONS

Except as noted below, manholes are required at all angle points, changes in grade and permanent dead ends. Maximum structure spacing is 450 feet unless otherwise permitted by the Engineer. Risers are not allowed for new construction.

22.15 MAIN LOCATIONS

To accommodate traffic control and access, mains should be located in the center of traffic lanes, when possible. For two-lane streets without medians, the mains should be located approximately 5 feet on either side of the street centerline.

22.16 INVERT ELEVATIONS AT MANHOLES

The invert elevations of the incoming and outgoing sewers shall be shown on the plans, and unless authorized by the Engineer, the following shall apply:

A. SEWERS OF SAME DIAMETER

Where two or more main sewers of the same diameter intersect, the difference in invert elevations of the incoming and outgoing sewers shall be a minimum of 0.01 foot per 10-degree deflection between mains with a maximum of 0.10 foot for a deflection of 90 degrees. Main sewers through manhole with no deflection will be designed with no change in invert elevation. In situations where the flow in the downstream sewer is more than half full, the District (at their discretion) may require the incoming sewer's invert to be installed higher to minimize backwater conditions

B. SEWERS OF DIFFERENT DIAMETERS

Where two or more main sewers of different diameters intersect, the invert elevations of the incoming and outgoing sewers shall be so related that the inside tops (crown) of the sewers are at the same elevation. In situations where the flow in the downstream sewer is more than half full, the District (at their discretion) may require the incoming sewer's invert to be installed higher to minimize backwater conditions.

22.17 MAXIMUM DEFLECTION AT MANHOLES

At manholes, the upstream deflection angle at the intersection of two main sewers must not be greater than 100 degrees.

22.18 BUILDING SEWER CONNECTION AT MANHOLES

Four (4) inch and six (6) inch Building Sewers will not normally be permitted to be connected into manholes except for dead end manholes. (See Section 23.08 herein).

22.19 MANHOLE RIM ELEVATION

Manhole rim elevation shall be shown on Plans to nearest 0.10 foot, unless otherwise indicated on the Plans, it shall be assumed to be flush with the adjacent ground surface. In areas where future streets will be constructed, rim elevation shall also be shown for future finished grade.

22.20 CONNECTION TO EXISTING MANHOLE

In existing manholes where no stub exists, District forces will provide a channel in the portion of the base block located inside the manhole two inches larger than the outside diameter of the proposed stub. It shall be the responsibility of the Contractor to perform all the necessary work on the exterior of the manhole in preparation for the installation of the new stub. The Contractor shall be responsible for the alignment and grade of the new stub. The Contractor shall make a water-tight seal of the new stub from the outside of the manhole. All work by the Contractor shall be performed in a manner that will

maintain the integrity of the existing manhole. District forces will finish the inside channel at the developer's expense. The Contractor shall provide 24 hours' notice to the District prior to the start of any work.

22.21 CONNECTIONS BETWEEN MAIN SEWERS

Connections of new main sewers into existing main sewers must be made by means of a new manhole installed by the Contractor with District Forces doing the channeling at Developers cost. (See Sections 18.02 and 23.08 herein for connection of building sewer into existing main sewer).

22.22 DROP MANHOLES

Normally, drop manholes are not permitted. Use of vertical curve is usually more desirable. Use of drop manholes will be at the discretion of the District Engineer.

22.23 BOLT-DOWN MANHOLES

Standard District bolt-down manhole frame and cover without vent holes shall be required when manhole is located on a lot where there will be a residence.

22.24 EASEMENT WIDTH REQUIREMENTS

Main sewers not located in public streets must be situated within Sanitary Sewer Easements or within Public Utility Easements. Unless otherwise required by the Engineer, 15 feet is the minimum width when manholes lie within the easement and 10 feet is minimum otherwise.

22.25 EASEMENT PAVING REQUIREMENTS

All manhole structures appurtenant to sanitary main sewers must be accessible to District maintenance vehicles.

Where deemed necessary by the Engineer, this accessibility shall be achieved by means of an adequately surfaced roadway of a design approved by said Engineer.

22.26 EASEMENT ACCESS REQUIREMENTS

Access to and along the easement, including all manholes shall be feasible and safely achievable by District maintenance vehicles.

SECTION 23 - DESIGN AND POLICY STANDARDS FOR BUILDING SEWERS

23.01 SIZE AND SLOPE

Minimum size of building sewer shall be four (4) inches in diameter but in no case smaller than the building drain (building plumbing) stub diameter. Plumbing fixture unit values, as established by the latest edition of the California Plumbing Code, shall be used in designing the building sewer.

The following Table shows (for four-inch and six-inch diameter sewers) the minimum slope in percent permissible for the maximum number of plumbing fixture units noted. Note that cut sheets will be required for 6 inch sewers with slope less than 1.0%.

(Please note however, that in areas where the mains are of adequate depth that 2% slope is the preferred minimum for 4-inch sewers and 1% slope is the preferred minimum for 6-inch sewers.)

Maximum Fixture Units	4-inch Diameter Building Sewer	6-inch Diameter Building Sewer
200	1.0%	0.5%
600	N.A.	0.5%
700	N.A.	0.6%
800	N.A.	0.7%
900	N.A.	0.8%
1000	N.A.	0.9%
1200	N.A.	1.0%

When over 1200 fixture units are to be accommodated, 8 inch or larger diameter building sewer may be used, in accordance with main sewer design criteria. (See Section 22 herein).

23.02 PIPE MATERIALS

All materials authorized for use in the Standard Specifications may be used for domestic waste. Additionally, Schedule 40 PVC can be used for 4-inch and 6-inch diameter building sewers. Specific District approval of pipe material will be required for a sewer that will convey industrial waste. When building sewers are located under porches, steps, breezeways, roofed patios, carports, covered walks, covered driveways and similar structures they shall be constructed of P.V.C. (SDR 18 or 14).

23.03 ALIGNMENT

Sewer alignment shall be as straight as possible. When angle points are approved, only one 45 degree (maximum) change of direction (horizontal or vertical) is permissible without a cleanout. Any additional changes of direction (horizontal or vertical), thereafter, in excess of 22 ½ degrees shall be served by a cleanout or manhole. Ninety-degree bends or tees are not permitted.

23.04 BUILDING PLUMBING (BUILDING DRAIN) LOCATION

The location should be arranged so that the point of connection with the building sewer is on that portion of the building facing the public sewer main.

23.05 GRADE

Unless otherwise authorized by the Engineer, the sewer shall be laid on a straight grade between the main sewer and the property line and between the property line and the building drain (building plumbing). Changes in grade shall be served by a cleanout or manhole.

23.06 GRADE STAKES

When cut sheets are required, sewer construction stakes shall be located at angle points, grade breaks, cleanouts, wyes, structures and at a 50-foot maximum spacing. An additional stake will also be required at property line and at connection point with building plumbing (building drain).

The stakes shall be offset from the center line of the sewer at a safe distance from the edge of the trench but in no case greater than 10 feet unless authorized by the Engineer. The stakes will be marked with off-set and station only.

When the sewer is to be constructed to property line only, the Engineer may require a stake to be set at the point prior to construction.

23.07 CURB MARKING

At the time the curb stakes are set (prior to construction of curb and gutter) an additional stake must be set by the Developer's Engineer on the curb stake line opposite the point at which the building sewer crosses the property line. This will insure that the "S" can be stamped in the fresh concrete in the proper location as required under Section 11.06 of the Standard Specifications.

23.08 CONNECTION TO EXISTING MAIN SEWER

Unless otherwise permitted or required by the Engineer, the connection of a four (4) inch diameter building sewer into an existing eight (8) inch or larger diameter main sewer, or the connection of a six (6) inch diameter building sewer into an existing 10 inch or larger diameter main sewer will be made by installation of a wye spliced into the existing main sewer or a stub installed by means of a tap made by "Tap Tite" or approved equal. The connection of the building sewer to the main sewer shall be airtight and at the option of the Engineer may require air testing.

The connection of a four (4) inch diameter building sewer into an existing six (6) inch sewer main, or the connection of a six (6) inch diameter building sewer into an existing eight (8) inch main sewer will be made by installation of a wye spliced into the existing main sewer.

Contractor will not be permitted to splice wye on existing USD main sewers (see Section 18.02 herein), unless approved by the Engineer.

Connection of building sewers to sewer lines larger than 15 inches in diameter will only be permitted when so approved by the Engineer.

23.09 ELEVATION AT CONNECTION TO MAIN SEWER

When sufficient grade is available, design sewer elevations at connection to main sewer on the basis that the invert elevation of the building sewer is equal to the inside top elevation of the main sewer.

23.10 CONNECTION TO EXISTING BUILDING SEWER

The connection may be made by means of a private manhole, wye spliced into existing building sewer or stub installed by means of a tap made by "Tap Tite" or approved equal, all as shown on Standard Details and on District Approved Plans.

Actual connection of a new building sewer to an existing building sewer will not be permitted until the new sewer has been satisfactorily tested. If authorized by the Engineer, a test wye may be used with a plug in lieu of leaving a temporary gap in the sewer.

23.11 CONNECTION TO BUILDING DRAIN (PLUMBING KICK-OUT)

After a permit authorizing said construction has been issued, building sewers may be constructed up to a point 5 feet from the building wall. Actual connection of the building sewer to the building drain (building plumbing) will not be permitted however, until the main sewer or building sewer to which it connects has been accepted by the District and the subject building sewer has been satisfactorily tested in accordance with Standard Specifications Section 12.

Actual connection must be done by a sewer contractor with a valid sewer construction permit issued by the District. Work must be done in the presence of and to the satisfaction of the Engineer.

23.12 CLEARANCES

- A. Unless otherwise permitted by the Engineer, when a building sewer crosses another utility, a vertical clearance of at least six (6) inches shall be maintained.
- B. Unless otherwise permitted in the California Plumbing Code, building sewers and other utilities shall be kept sufficiently separated to be laid in separate trenches.

23.13 PARALLEL TO FOOTING

Any sewer deeper than the footing of any building or structure and paralleling the same must be designed to be of sufficient distance from the footing so that no part of the trench will fall within a 45-degree line drawn downward from the bottom of the footing (see Standard Details).

23.14 CROSSING STORM DRAINS

A. VITRIFIED CLAY PIPE (VCP)

Whenever a VCP pipe building sewer crosses over a storm drain, regardless of the vertical clearance, or under a storm drain with less than six (6) inches vertical clearance, span the storm drain trench with a single length of PVC Pressure Pipe (SDR 18), and extend a minimum distance on each side of the trench per Standard Details.

B. FLEXIBLE PIPE

Whenever a flexible pipe building sewer crosses over a storm drain, a single length of similar flexible pipe may span the storm drain trench. Pipe couplings are not allowed within the storm drain trench.

If the strength characteristics of the flexible pipe are exceeded, the span of the storm drain trench shall be made with a single length of PVC Pressure Pipe (SDR 18), and extend a minimum distance on each side of the trench per Standard Details. Conditions to be met will be specified in each instance by the Engineer.

23.15 CROSSING WATER MAINS

No building sewer shall be installed over a water main where the vertical clearance is less than twelve (12) inches. Where the vertical clearance over a water main is more than twelve (12) inches span the water main with one length of PVC Pressure Pipe (SDR 18) per Standard Details.

23.16 MINIMUM PIPE COVER

Minimum permitted cover in inches over outside top of pipe bell to top of "Backfill" or to existing ground at time of sewer installation, whichever is lower, is shown in the table on Standard Detail Sheet titled: Sewer Pipe Installation.

Cover requirements for other pipe materials and sizes will be based on their strength characteristics as approved by the Engineer.

23.17 TRENCH INTERSECTIONS

Avoid non-perpendicular crossings/intersections between the sanitary sewer and other underground utilities.

23.18 HORIZONTAL UTILITY CLEARANCE

A minimum horizontal clearance of five (5) feet should be maintained between the building sewer and adjacent underground utility lines and concrete curbs. A minimum horizontal clearance of ten (10) feet should be maintained between the building sewer and parallel water mains or services.

23.19 STRUCTURE TYPE AND LOCATION

A. PRIVATE MANHOLE

Private manholes must be constructed on building sewers eight (8) inches in diameter and larger with maximum spacing of 450 feet, at changes in horizontal or vertical direction, and at other locations required by the Engineer. They may be used on smaller building sewers in lieu of cleanouts.

A "control manhole" is required on the building sewer serving each user in an industrial building, if so required by the Engineer in accordance with District Ordinances.

B. CLEANOUT TO GRADE (FULL BORE) "C.O.T.G."

A cleanout shall be constructed on four (4) inch and six (6) inch sewer at intervals not to exceed 100 feet as well as at locations indicated in Section 23.03 herein. See Section "C" below for requirements at connection to building plumbing. Also see "A" above for use of manholes in lieu of cleanout to grade. No cleanout is required on runs less than 10 feet in length (See Section 7.05 in Standard Specifications).

C. TWO-WAY CLEANOUT TO GRADE

Two-way cleanouts shall be constructed on all four (4) inch sewers at the connection of the building sewer with the plumbing drain. This cleanout shall be located no further than 30 inches from the building wall and protected with an approved box. (See Section 7.06 in Standard Specifications).

D. TEST WYE

A test wye shall be constructed at locations shown on Plans or as required by the Engineer to facilitate testing of the building sewers. (See Section 7.07 in Standard Specifications).

E. ANY OTHER STRUCTURES

Other structures required will be located as shown on approved Plans and be constructed in accordance with District requirements.

23.20 OVERFLOW DEVICES

Overflow protection devices shall be installed on building sewers when specifically required by the Engineer. The particular device to be used and its installation must be approved by the Engineer. This device will be required on all residential and commercial buildings where the floor elevation is six (6) inches or less above the closest upstream manhole rim elevation.

23.21 NUMBER OF BUILDING SEWERS REQUIRED

See Section 18.06.

23.22 PRIVATE PUMPING STATIONS

Private pumping stations should be avoided if possible. Private pumping stations must be approved by the Engineer. The pumping stations should be designed and stamped by a California registered civil engineer. Submittals including design calculations, flows, pump information, etc. shall be made to the Engineer. Minimum requirements for private pumping stations are shown in the Standard Details.

23.23 NEW UTILITIES CROSSING EXISTING SEWER MAINS AND BUILDING SEWERS

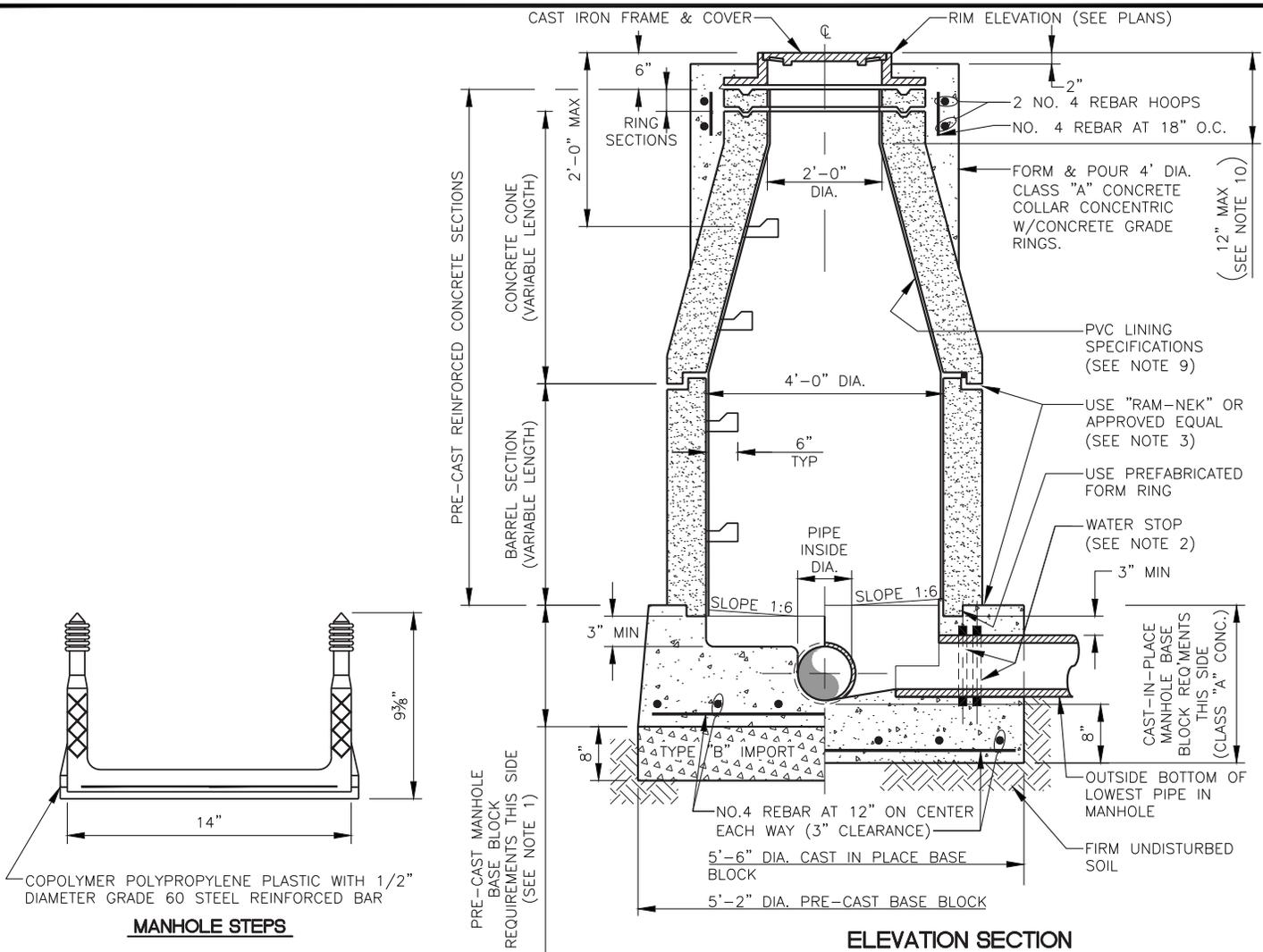
- A. New utilities shall be installed with a minimum of 12-inches of clearance when crossing an existing sewer main or building sewer.
- B. If requested by the District, existing sewer main or building sewer shall be CCTV inspected prior to and after installation of new utility.
- C. If requested by the District, submit work plan and provide final clearance measurement of crossing utility.

(THIS PAGE LEFT BLANK INTENTIONALLY)

STANDARD DETAILS

TITLE	DETAIL NO.
Standard Manhole	1
Trunk Manhole	2
Drop Manhole	3
Special Manhole Base for Dead End Manholes in Cul-de-sacs	4
Private Control Manhole Types "A" and "B"	5
Private Control Manhole Type "C"	6
Manhole Frame and Cover	7
Bolt-Down Manhole Frame and Cover	8
Private Manhole Frame and Cover	9
Private Control Manhole Frame and Cover	10
36" Diameter Manhole Frame and Cover	11
Riser	12
Riser Frame and Cover for 6", 8" and 10" Diameter Pipe	13
Building Sewer Details	14A
Building Sewer Details – Zero Lot Line Connection	14B
Standard Building Sewer Cleanout to Grade	15
Sanitary Sewer/Storm Drain Crossing	16
Sanitary Sewer/Water Main Crossing	17
Sewer Pipe Installation (Cover, Slope, Special Bedding and Encasement Requirements)	18A
Sewer Pipe Installation (Trench Backfill Materials)	18B
Sand/Oil/Water Separator	19
Clarifier	20
Grease Interceptor	21
Grease Trap	22
Trash Enclosure Interceptor	23
Commercial/Multi-Family Residential Pumping Station	24A
Commercial/Multi-Family Residential Pumping Station – Connection to Main and Notes	24B
Single-Family Residential Pumping Station	25
Mobile Home/RV/Trailer Holding Tank Disposal Facility	26
Overflow/Backflow Prevention Device	27
Pipe Casing	28
Pool Filter Backwash Sump	29
Air Gap for Fire Sprinkler Test	30
Street/Access Road Requirements	31
Pipe Concrete Cap	32
Manhole Transition Riser	33

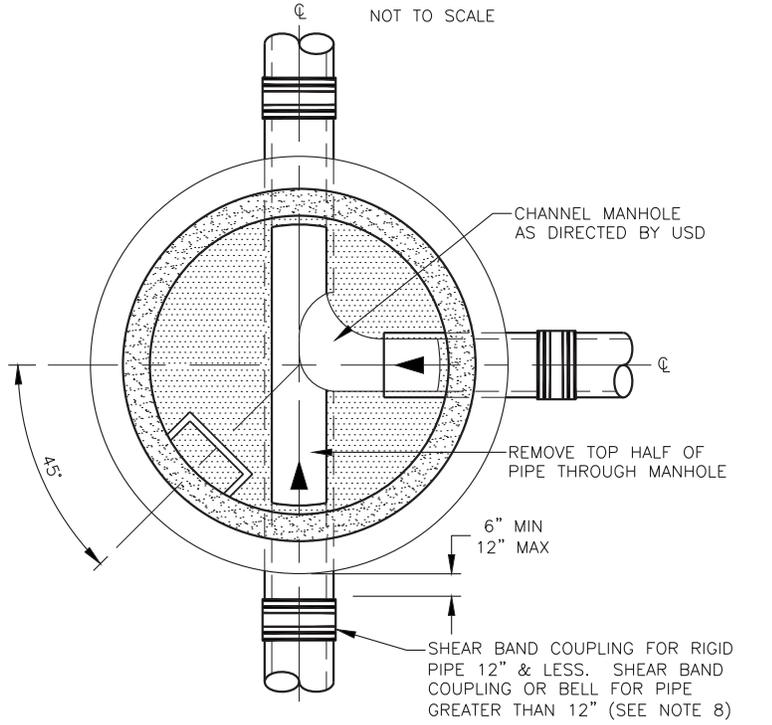
(THIS PAGE LEFT BLANK INTENTIONALLY)



MANHOLE STEPS

ELEVATION SECTION

- NOTES:
1. PRE-CAST MANHOLE SECTIONS SHALL BE AS MANUFACTURED BY OLDCASTLE PRECAST, 3786 VALLEY AVE, PLEASANTON, CA 94566, OR APPROVED EQUAL. PRE-CAST MANHOLE BASE BLOCKS SHALL ONLY BE USED AFTER PRIOR APPROVAL HAS BEEN RECEIVED FROM USD AND CITY FOR EACH LOCATION TO BE USED.
 2. FLEXIBLE PIPE ONLY – AN APPROVED WATER STOP, SUCH AS TWO O-RINGS OR A BANDED RUBBER COUPLING, SHALL BE INSTALLED ON ALL FLEXIBLE PIPE ENTERING OR LEAVING A MANHOLE AND CENTERED UNDER THE MANHOLE WALL AS SHOWN.
 3. INSTALL "RAM-NEK" OR APPROVED EQUAL BETWEEN EACH JOINT OF THE CONE AND BARREL SECTIONS TO MAKE A FLEXIBLE WATER-TIGHT JOINT. AFTER JOINT IS MADE, TRIM JOINT SMOOTH ON THE INSIDE OF MANHOLE.
 4. ALL STEPS SHALL BE INSTALLED IN PRE-CAST SECTIONS BY MANUFACTURER AND SPACED 10"-15" APART.
 5. PRE-CAST SECTIONS SHALL BE INSTALLED SO THAT STEPS ARE ALIGNED VERTICALLY AND AS SHOWN IN THE PLAN SECTION.
 6. IF THE DISTANCE FROM THE MANHOLE RIM TO THE TOP OF THE BASE BLOCK IS LESS THAN 4'-0", ORDER PRE-CAST SECTIONS WITHOUT STEPS.
 7. CEMENT MORTAR SHALL BE USED BETWEEN ALL GRADE RINGS.
 8. SHEAR BAND COUPLING NOT REQUIRED FOR FLEXIBLE PIPE OR IF MANHOLE IS INSTALLED OVER EXISTING SANITARY SEWER.
 9. PVC LINE STANDARD MANHOLES WHERE REQUIRED BY THE ENGINEER.
 10. 1'-6" MAX FOR EXISTING MANHOLES.
 11. CONCRETE COLLAR IN PAVED AREA SHALL BE 4'-0" DIAMETER AND IN UNPAVED AREA, IT SHALL BE 6'-0" DIAMETER SQUARED.



PLAN SECTION

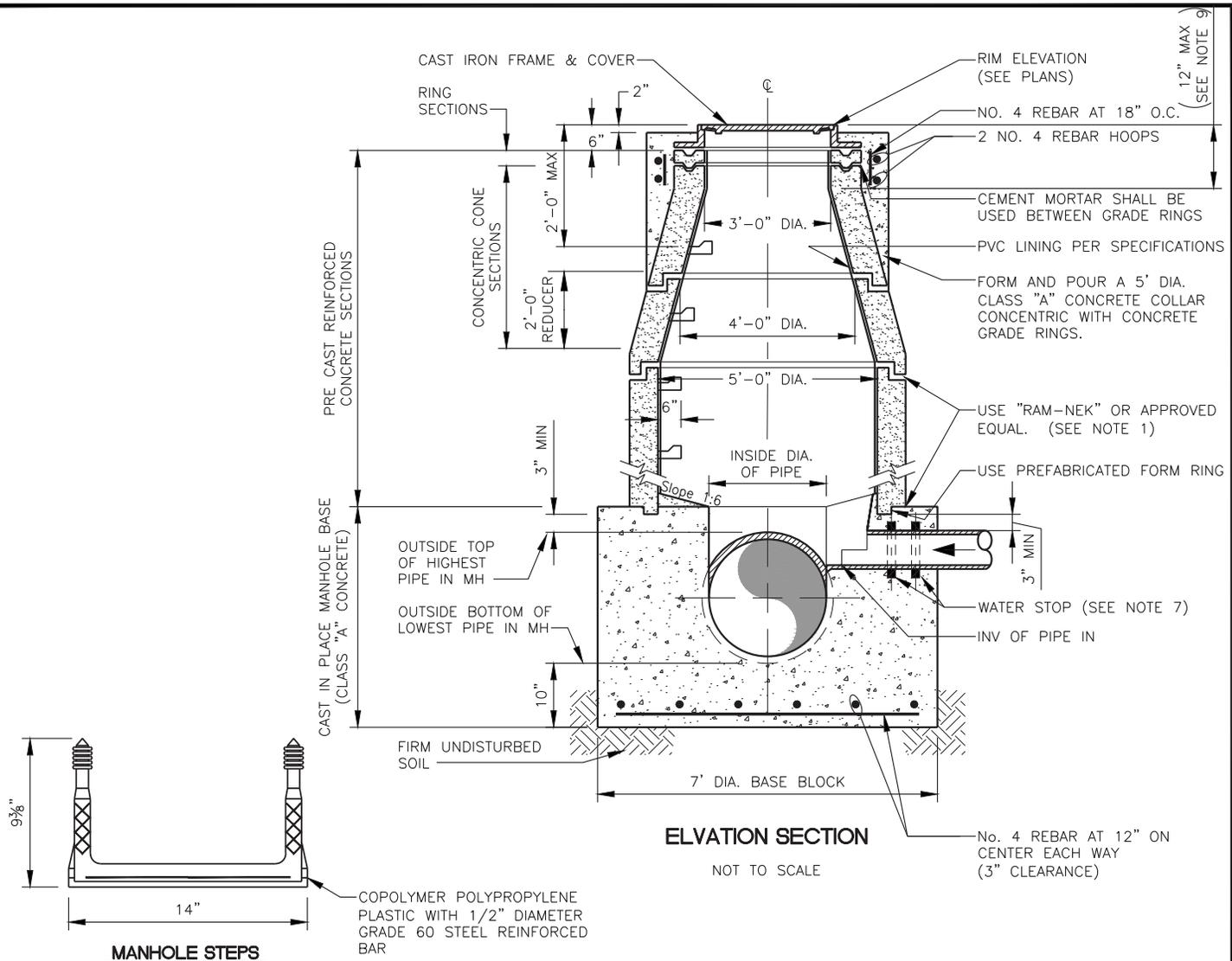
Date 3/15/17 Detail No. 1



UNION SANITARY DISTRICT

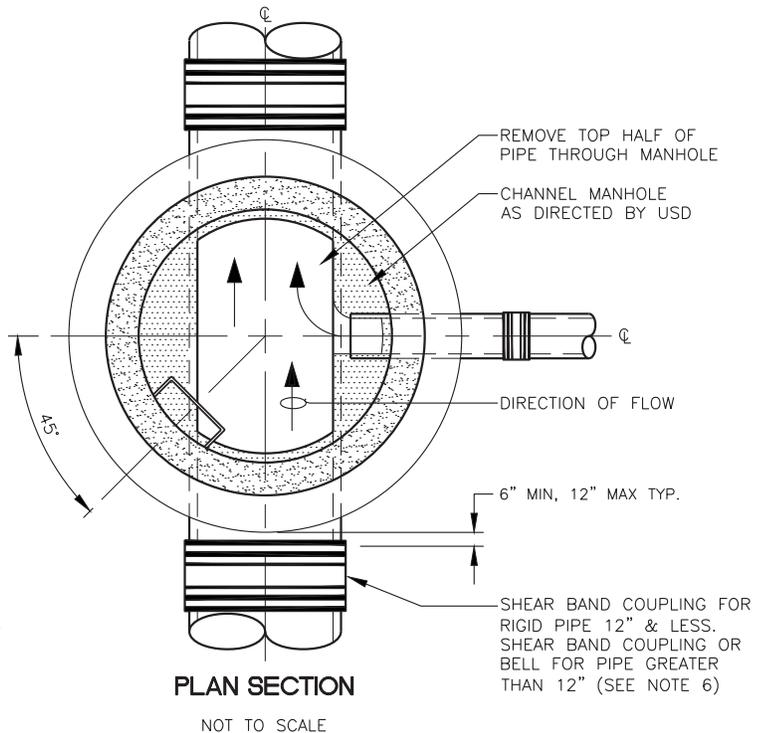
STANDARD MANHOLE

Approved 105 of 258
PAUL R. ELDRIDGE, RCE 60211



NOTES:

1. INSTALL "RAM-NEK" OR APPROVED EQUAL BETWEEN EACH JOINT OF THE CONE AND BARREL SECTIONS TO MAKE A FLEXIBLE WATER-TIGHT JOINT. AFTER JOINT IS MADE, TRIM JOINT SMOOTH ON THE INSIDE OF MANHOLE.
2. ALL STEPS SHALL BE INSTALLED IN PRE-CAST SECTIONS BY MANUFACTURER AND SPACED 10"-15" APART.
3. PRE-CAST SECTIONS SHALL BE INSTALLED SO THAT STEPS ARE ALIGNED VERTICALLY AND AS SHOWN IN THE PLAN SECTION.
4. IF DISTANCE FROM MANHOLE RIM TO TOP OF BASE BLOCK IS LESS THAN 4'-0", ORDER PRE-CAST SECTIONS WITHOUT STEPS.
5. TRUNK MANHOLES ARE REQUIRED WHEN THE SEWER LINE IS 24" OR LARGER IN DIAMETER.
6. SHEAR BAND COUPLING NOT REQUIRED FOR FLEXIBLE PIPE OR IF MANHOLE IS INSTALLED OVER EXISTING SANITARY SEWER.
7. FLEXIBLE PIPE ONLY - AN APPROVED WATER STOP, SUCH AS TWO O-RINGS OR A BANDED RUBBER COUPLING, SHALL BE INSTALLED ON ALL FLEXIBLE PIPE ENTERING OR LEAVING A MANHOLE AND CENTERED UNDER THE MANHOLE WALL AS SHOWN.
8. CEMENT MORTAR SHALL BE USED BETWEEN ALL GRADE RINGS.
9. 1'-6" MAX FOR EXISTING MANHOLES.
10. CONCRETE COLLAR IN PAVED AREA SHALL BE 4'-0" DIAMETER AND IN UNPAVED AREA, IT SHALL BE 6'-0" DIAMETER SQUARED.



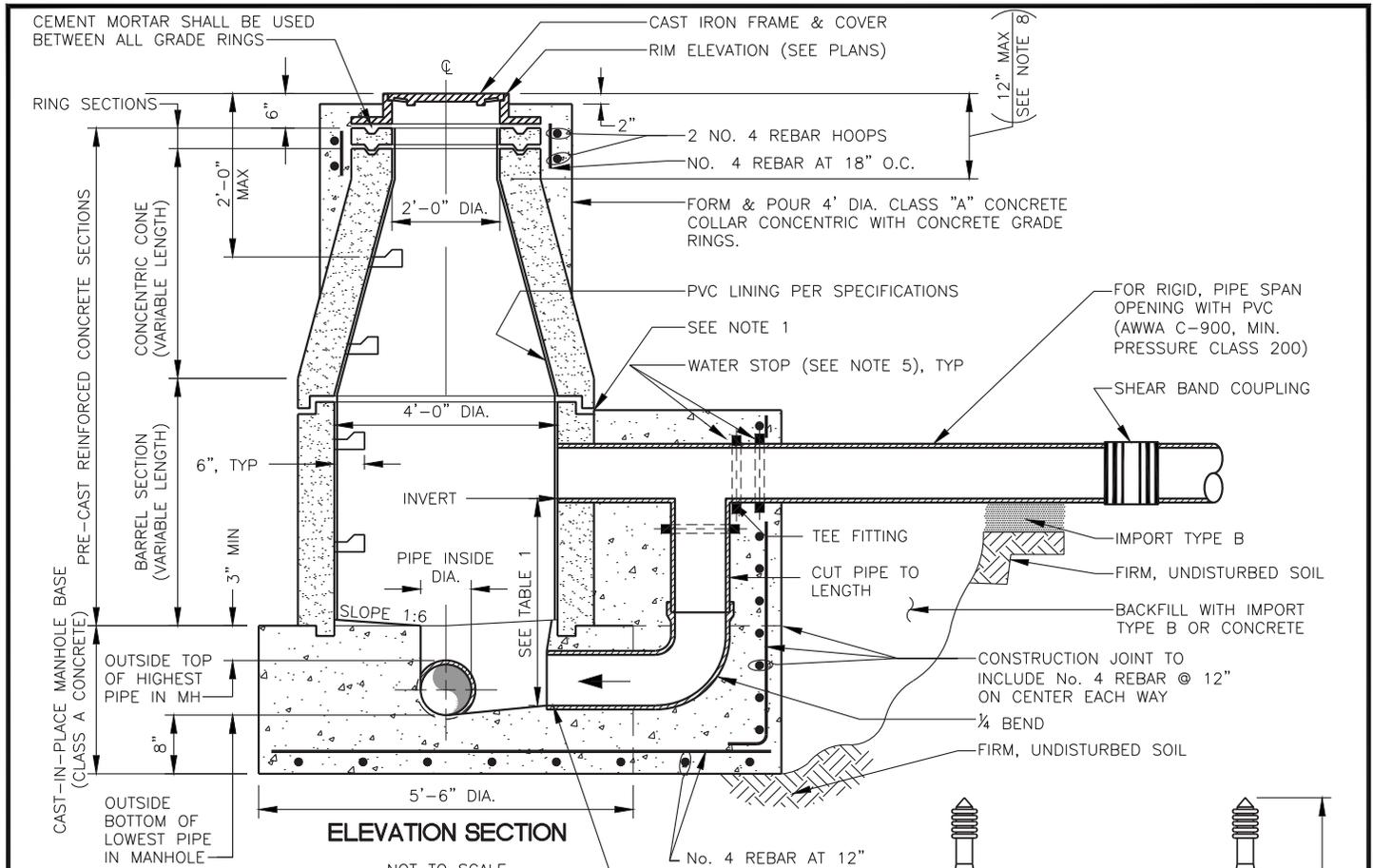
Date 3/15/17 Detail No. 2

Approved 106 of 258
PAUL R. ELDRIDGE, RCE 60211



UNION SANITARY DISTRICT

TRUNK MANHOLE



ELEVATION SECTION

NOT TO SCALE

SHEAR BAND COUPLING FOR RIGID PIPE 12" & LESS. SHEAR BAND COUPLING OR BELL FOR PIPE GREATER THAN 12" (SEE NOTE 7)

CENTERLINE OF MANHOLE

45°
CENTERLINE OF STEPS

PLAN SECTION

NOT TO SCALE

REMOVE TOP HALF OF PIPE THROUGH MANHOLE

TRENCH WIDTH

No. 4 REBAR AT 12" ON CENTER EACH WAY (3" CLEARANCE)
INVERT OF PIPE IN CHANNEL

MANHOLE STEPS

TABLE 1

PIPE DIAMETER	MIN DROP
8"	24"
10"	31"
12"	35"
15"	42"

NOTES:

1. INSTALL "RAM-NEK" OR APPROVED EQUAL BETWEEN EACH JOINT OF THE CONE AND BARREL SECTIONS. AFTER JOINT IS MADE, TRIM JOINT SMOOTH ON THE INSIDE OF MANHOLE.
2. ALL STEPS SHALL BE INSTALLED IN PRE-CAST SECTIONS BY MANUFACTURER AND SPACED APART BY 10"-15".
3. PRE-CAST SECTIONS SHALL BE INSTALLED SO THAT STEPS ARE ALIGNED VERTICALLY AND AS SHOWN IN THE PLAN SECTION.
4. IF DISTANCE FROM MANHOLE RIM TO TOP OF BASE BLOCK IS LESS THAN 4'-0", ORDER PRE-CAST SECTION WITHOUT STEPS.
5. FLEXIBLE PIPE ONLY - AN APPROVED WATER STOP, SUCH AS TWO O-RINGS OR A BANDED RUBBER COUPLING, SHALL BE INSTALLED ON ALL FLEXIBLE PIPE ENTERING OR LEAVING A MANHOLE, AND CENTERED UNDER THE MANHOLE WALL AS SHOWN.
6. CEMENT MORTAR SHALL BE USED BETWEEN ALL GRADE RINGS.
7. SHEAR BAND COUPLING NOT REQUIRED FOR FLEXIBLE PIPE OR IF MANHOLE IS INSTALLED OVER EXISTING SANITARY SEWER.
8. 1'-6" MAX FOR EXISTING MANHOLES.

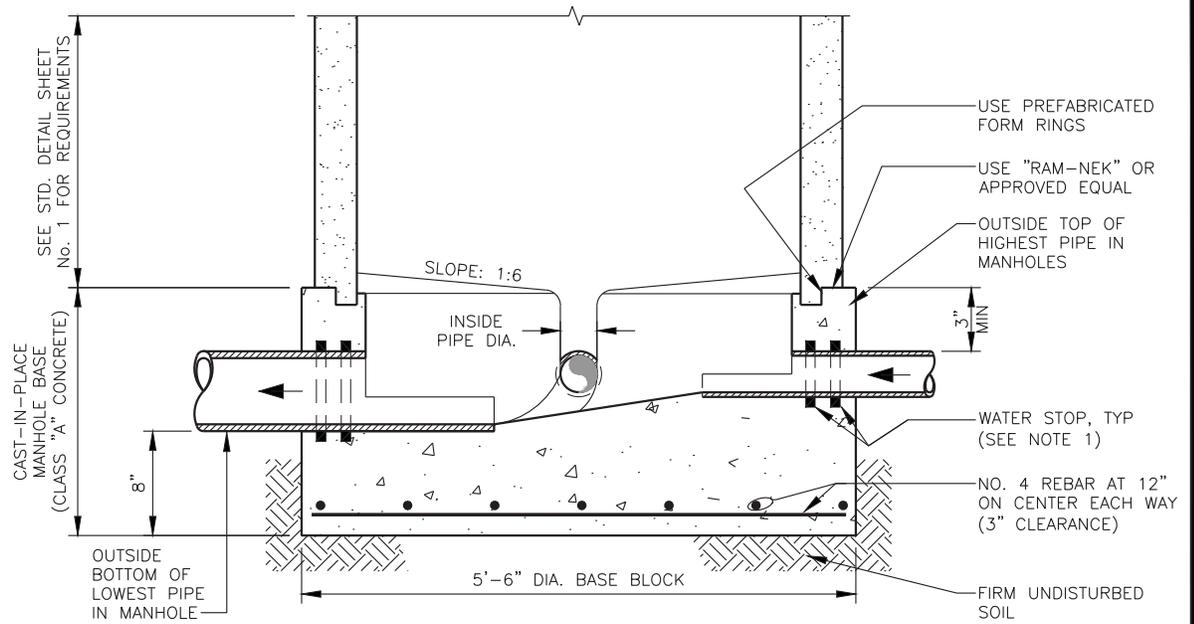
Date 3/15/17 Detail No. 3

Approved 107 of 258
PAUL R. ELDRIDGE, RCE 60211



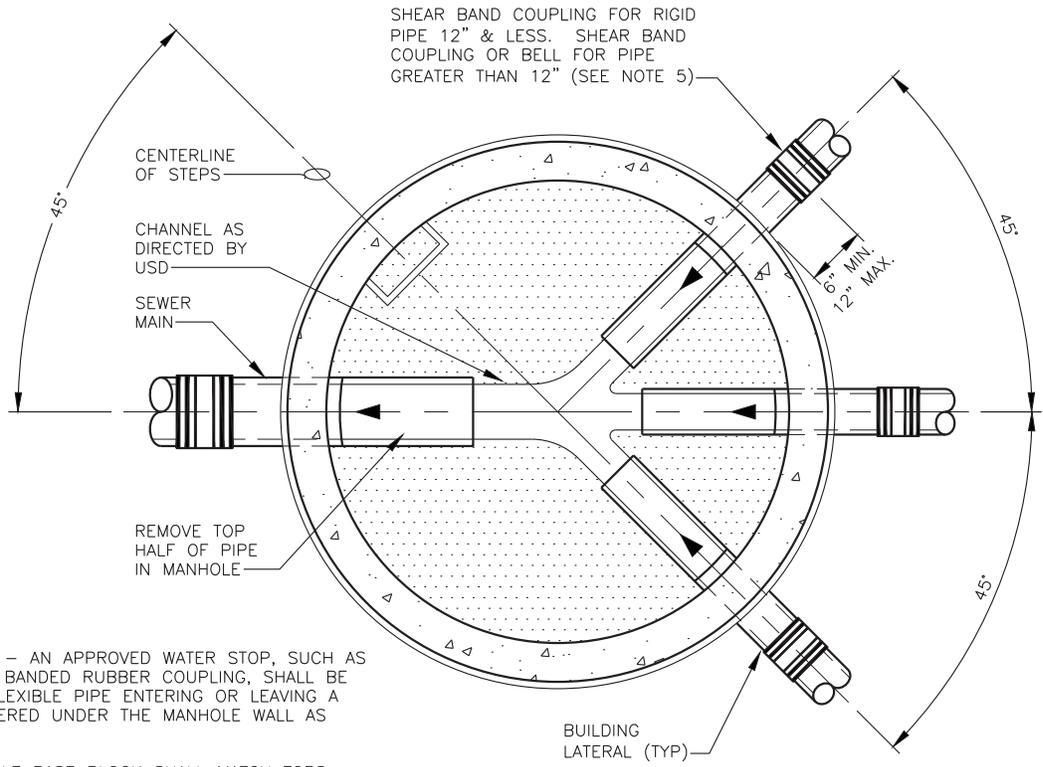
UNION SANITARY DISTRICT

DROP MANHOLE



ELEVATION SECTION

NOT TO SCALE



PLAN SECTION

NOT TO SCALE

- NOTES:
1. FLEXIBLE PIPE ONLY – AN APPROVED WATER STOP, SUCH AS TWO O-RINGS OR A BANDED RUBBER COUPLING, SHALL BE INSTALLED ON ALL FLEXIBLE PIPE ENTERING OR LEAVING A MANHOLE, AND CENTERED UNDER THE MANHOLE WALL AS SHOWN.
 2. ALL PIPES IN MANHOLE BASE BLOCK SHALL MATCH TOPS.
 3. MAXIMUM NUMBER OF LATERALS TO BE CONNECTED TO A DEAD END MANHOLE IN A CUL-DE-SAC IS THREE (3).
 4. INSTALL "RAM-NEK" OR APPROVED EQUAL BETWEEN EACH JOINT OF THE CONE AND BARREL SECTIONS TO MAKE A FLEXIBLE WATER-TIGHT JOINT. AFTER JOINT IS MADE, TRIM JOINT SMOOTH ON THE INSIDE OF MANHOLE.
 5. SHEAR BAND COUPLING NOT REQUIRED FOR FLEXIBLE PIPE OR IF MANHOLE IS INSTALLED OVER EXISTING SANITARY SEWER.

Date 3/15/17 Detail No. 4

Approved 108 of 258
PAUL R. ELDRIDGE, RCE 60211



UNION SANITARY DISTRICT

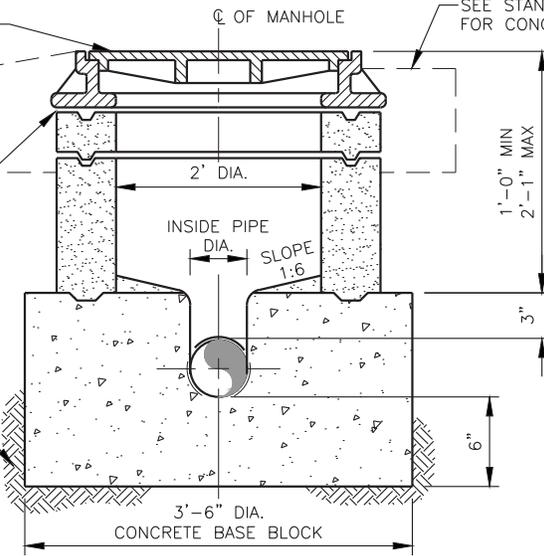
SPECIAL MANHOLE BASE FOR DEAD END MANHOLES IN CUL-DE-SACS

SEE STANDARD DETAIL SHT 10 FOR FRAME & COVER DETAIL

SEE STANDARD DETAIL SHT 6 FOR CONCRETE COLLAR DETAIL

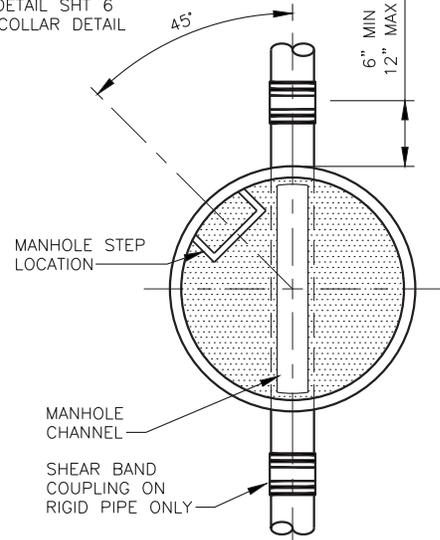
CEMENT MORTAR SHALL BE USED BETWEEN GRADE RINGS, TYP.

FIRM UNDISTURBED SOIL



TYPE "A" MANHOLE

NOT TO SCALE



TYPICAL PLAN SECTION

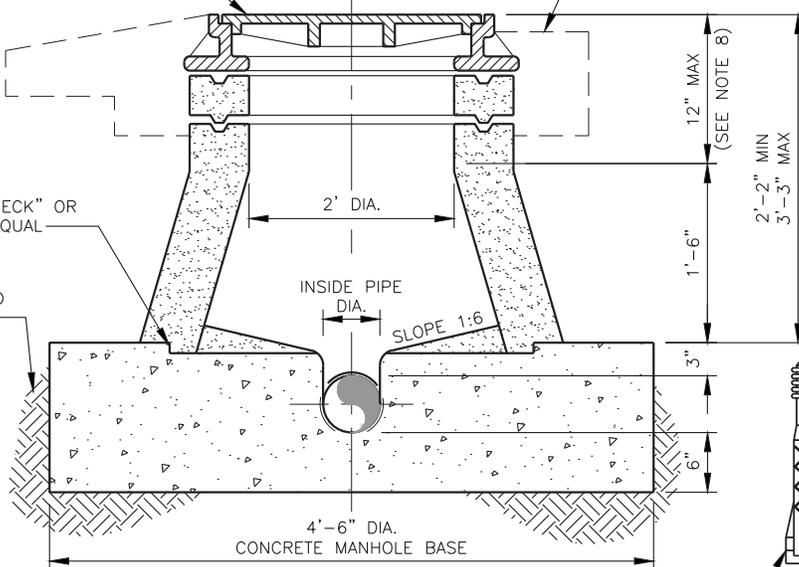
NOT TO SCALE

SEE STANDARD DETAIL NO. 10 FOR FRAME & COVER DETAIL

SEE STANDARD DETAIL SHT 6 FOR CONCRETE COLLAR DETAIL

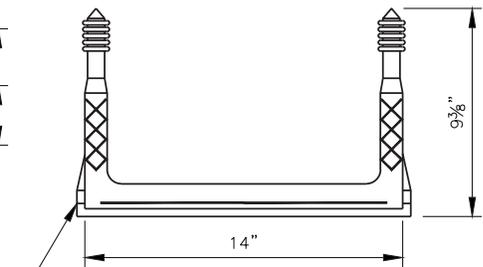
USE "RAM-NECK" OR APPROVED EQUAL

FIRM UNDISTURBED SOIL



TYPE "B" MANHOLE

NOT TO SCALE



COPOLYMER POLYPROPYLENE PLASTIC WITH 1/2" DIAMETER GRADE 60 STEEL REINFORCED BAR

MANHOLE STEPS

NOTES:

1. TYPE "C" PRIVATE CONTROL MANHOLE (DETAIL NO. 6) SHALL BE USED IN MOST CIRCUMSTANCES. TYPE "A" & "B" SHALL BE USED ONLY WITH SPECIAL PERMISSION BY THE ENGINEER.
2. INSTALL "RAM-NEK" OR APPROVED EQUAL BETWEEN EACH JOINT OF THE CONE AND BARREL SECTIONS TO MAKE A FLEXIBLE, WATER-TIGHT JOINT. AFTER JOINT IS MADE, TRIM JOINT SMOOTH ON THE INSIDE OF MANHOLE.
3. DO NOT INSTALL STEPS IN MANHOLE NECKS OR IN A MANHOLE THAT IS LESS THAN 4 (FOUR) FEET DEEP. IF MANHOLE IS GREATER THAN 4 (FOUR) FEET DEEP, STEPS SHALL BE INSTALLED AND EQUALLY SPACED AT INTERVALS FROM 10"-16" APART AND ALIGNED VERTICALLY.
4. COLLAR AND MANHOLE BASE SHALL BE CLASS "A" CONCRETE POURED IN PLACE.
5. INSTALL PRIVATE CONTROL MANHOLE FRAME AND COVER AS SHOWN ON DETAIL NO. 10 OF USD STANDARD SPECIFICATIONS.
6. ALL CONCRETE GRADE RINGS, CONES AND BARREL SECTIONS SHOWN ABOVE ARE PRECAST AS MANUFACTURED BY OLDCASTLE PRECAST, 3786 VALLEY AVE, PLEASANTON, CA 94566, OR AN APPROVED EQUAL.
7. FOR FLEXIBLE PIPE ONLY - AN APPROVED WATER STOP, SUCH AS BANDED RUBBER COUPLING, SHALL BE INSTALLED ON ALL FLEXIBLE PIPE ENTERING OR LEAVING A MANHOLE AND CENTERED UNDER THE MANHOLE WALL.
8. 1'-6" MAX FOR EXISTING MANHOLES.

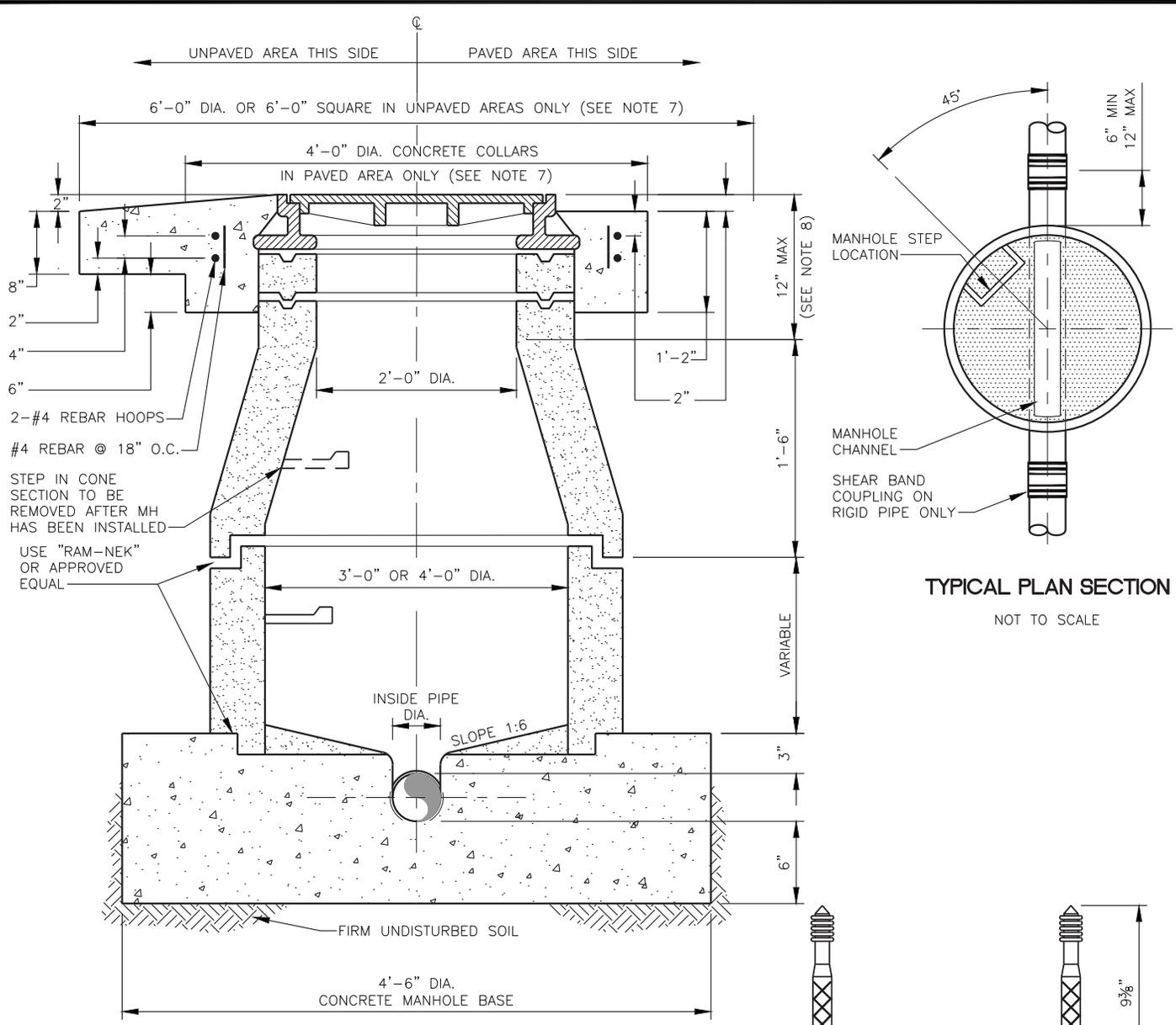
Date 3/15/17 Detail No. 5

Approved 100 of 258
PAUL R. ELDREDGE, RCE 60211



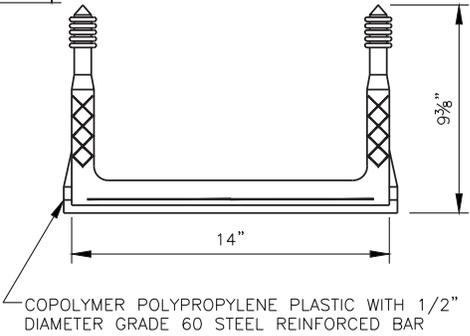
UNION SANITARY DISTRICT

PRIVATE CONTROL MANHOLE
TYPES "A" AND "B"



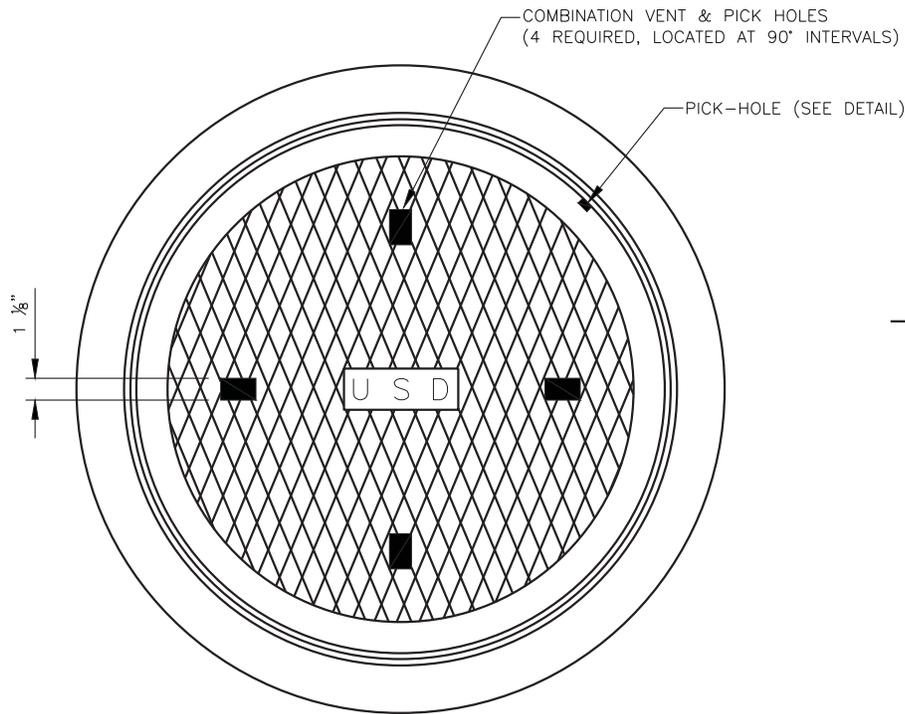
TYPE "C" MANHOLE
NOT TO SCALE

TYPICAL PLAN SECTION
NOT TO SCALE

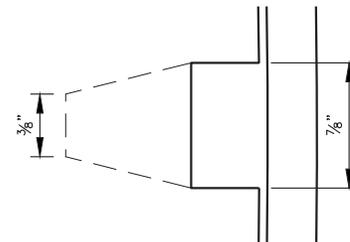
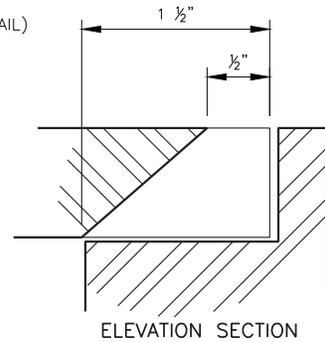


MANHOLE STEPS

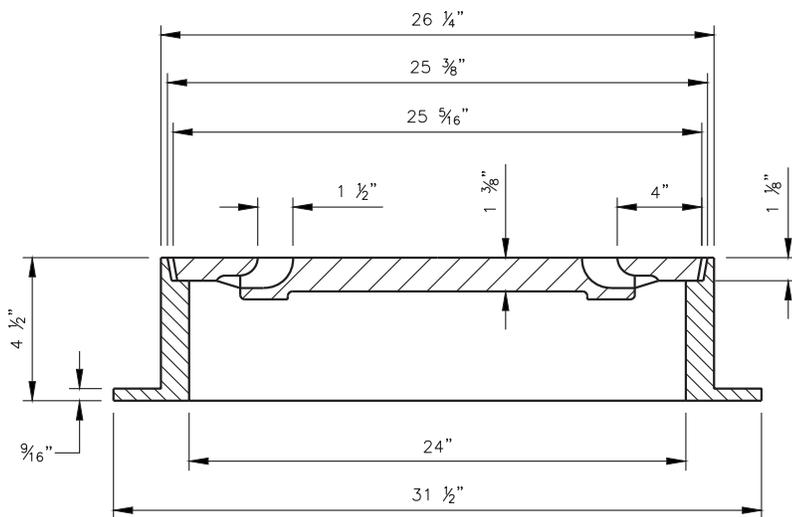
- NOTES:
1. INSTALL "RAM-NEK" OR APPROVED EQUAL BETWEEN EACH JOINT OF THE CONE AND BARREL SECTIONS TO MAKE A FLEXIBLE, WATER-TIGHT JOINT. AFTER JOINT IS MADE, TRIM JOINT SMOOTH ON THE INSIDE OF MANHOLE.
 2. DO NOT INSTALL STEPS IN MANHOLE NECKS OR IN A MANHOLE THAT IS LESS THAN 4 (FOUR) FEET DEEP. IF MANHOLE IS GREATER THAN 4' DEEP, STEPS SHALL BE INSTALLED AND EQUALLY SPACED AT INTERVALS FROM 10"-15" APART AND ALIGNED VERTICALLY.
 3. COLLAR AND MANHOLE BASE SHALL BE CLASS "A" CONCRETE POURED IN PLACE.
 4. INSTALL PRIVATE CONTROL MANHOLE FRAME AND COVER AS SHOWN ON STANDARD DETAIL NO. 10.
 5. ALL CONCRETE GRADE RINGS, CONES AND BARREL SECTIONS SHOWN ABOVE ARE PRE CAST AS MANUFACTURED BY OLDCASTLE PRECAST, 3786 VALLEY AVE, PLEASANTON, CA 94566, OR AN APPROVED EQUAL.
 6. FLEXIBLE PIPE ONLY - AN APPROVED WATER STOP, SUCH AS BANDED RUBBER COUPLING, SHALL BE INSTALLED ON ALL FLEXIBLE PIPE ENTERING OR LEAVING A MANHOLE, AND CENTERED UNDER THE MANHOLE WALL.
 7. CONCRETE COLLAR IN PAVED AREA SHALL BE 4'-0" DIAMETER AND IN UNPAVED AREA IT SHALL BE 6'-0" DIAMETER OR SQUARED.
 8. 1'-6" MAX FOR EXISTING MANHOLES.



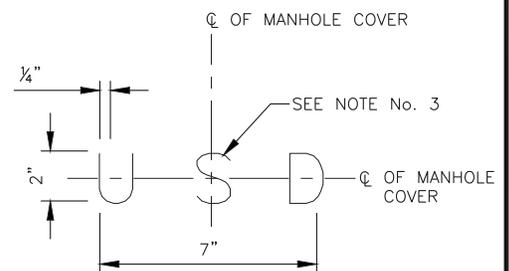
PLAN SECTION
NOT TO SCALE



PICK HOLE DETAIL
NOT TO SCALE



ELEVATION SECTION
NOT TO SCALE



LETTERING DETAIL

NOTES:

1. MINOR MODIFICATIONS IN ABOVE DIMENSIONS AND MANUFACTURING CONFIGURATIONS ARE PERMISSIBLE SUBJECT TO DISTRICT APPROVAL.
2. CAST IRON FOR FRAME AND COVER SHALL BE CLASS 30 MINIMUM AS PER ASTM A-48.
3. RAISED LETTERS 1/4" HIGH TO BE CAST IN CENTER OF MANHOLE COVER.
4. BEFORE LEAVING THE FOUNDRY, THE FRAME AND COVER SHALL BE PAINTED OR DIPPED IN ASPHALT PAINT.
5. MANHOLE FRAME AND COVER SHALL BE AS MANUFACTURED BY SOUTH BAY FOUNDRY, 42 N. CLUFF AVE., LODI, CA 95240, OR APPROVED EQUAL.
6. FRAME AND COVER BEARING SURFACES SHALL BE MACHINED TO ASSURE CLOSE, QUIET FIT.

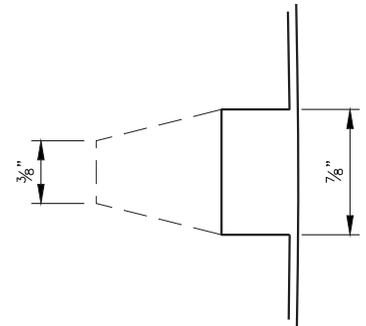
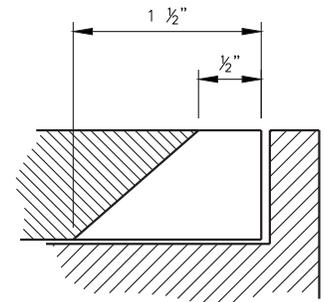
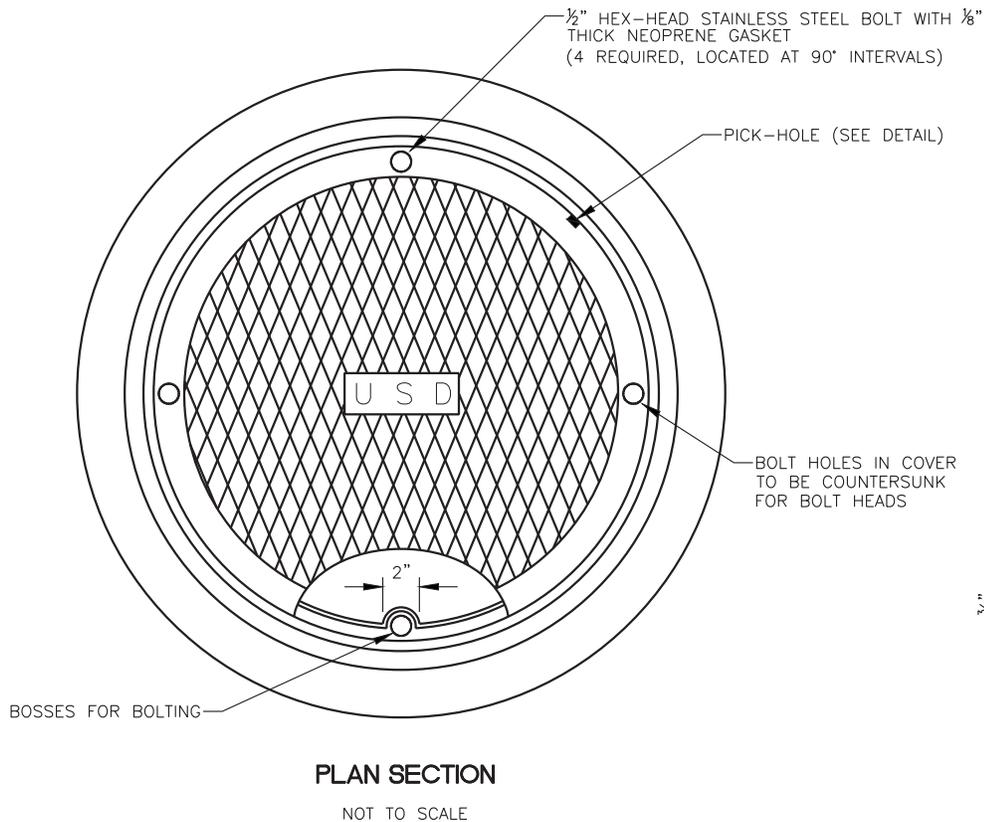
Date 3/15/17 Detail No. 7

Approved 11-1 of 258
PAUL R. ELDREDGE, RCE 60211

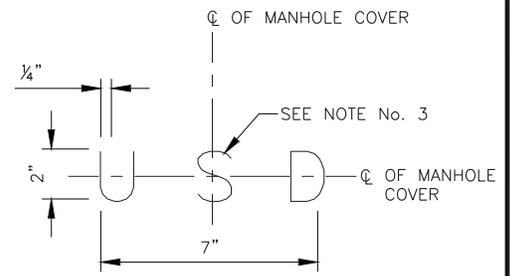
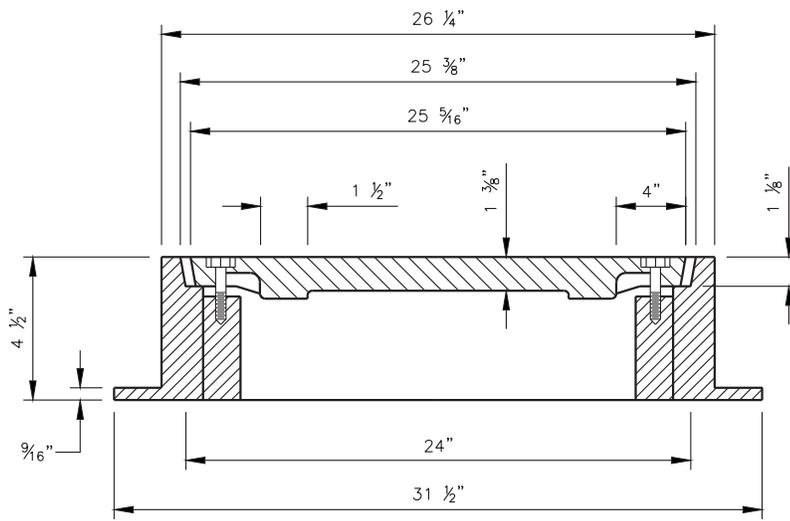


UNION SANITARY DISTRICT

MANHOLE FRAME AND COVER



PICK HOLE DETAIL
NOT TO SCALE



NOTES:

- MINOR MODIFICATIONS IN ABOVE DIMENSIONS AND MANUFACTURING CONFIGURATIONS ARE PERMISSIBLE SUBJECT TO DISTRICT APPROVAL.
- CAST IRON FOR FRAME AND COVER SHALL BE CLASS 30 MINIMUM AS PER ASTM A-48.
- RAISED LETTERS 1/4" HIGH TO BE CAST IN CENTER OF MANHOLE COVER.
- BEFORE LEAVING THE FOUNDRY, THE FRAME AND COVER SHALL BE PAINTED OR DIPPED IN ASPHALT PAINT.
- MANHOLE FRAME AND COVER SHALL BE AS MANUFACTURED BY SOUTH BAY FOUNDRY, 42 N. CLUFF AVE., LODI, CA 95240, OR APPROVED EQUAL.
- FRAME AND COVER BEARING SURFACES SHALL BE MACHINED TO ASSURE CLOSE, QUIET FIT.

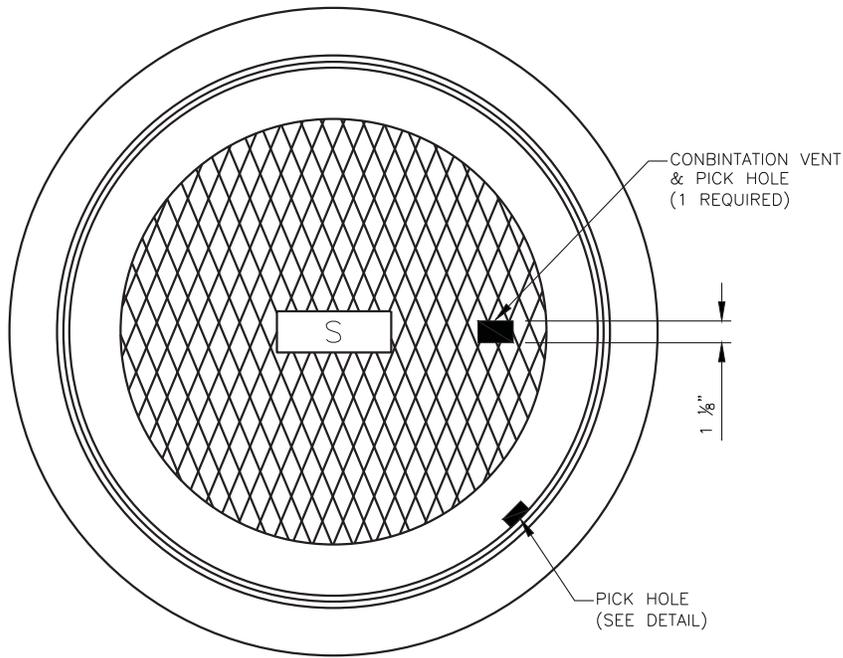
Date 3/15/17 Detail No. 8

Approved 12 of 258
PAUL R. ELDRIDGE, RCE 60211

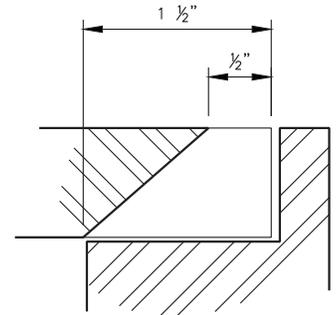


UNION SANITARY DISTRICT

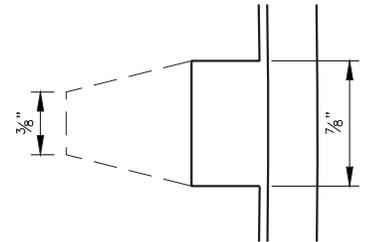
**BOLT-DOWN MANHOLE
FRAME AND COVER**



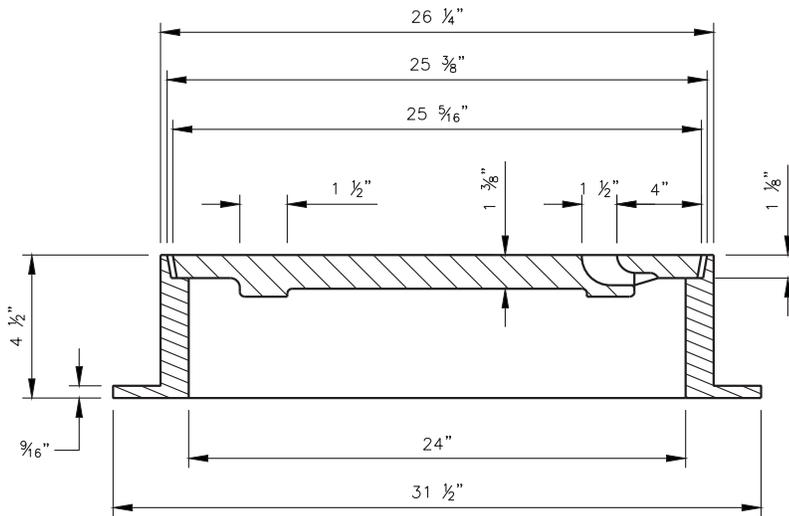
PLAN SECTION
NOT TO SCALE



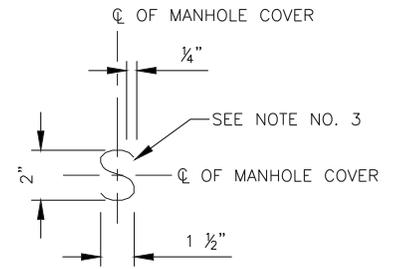
ELEVATION SECTION



PICK HOLE DETAIL
NOT TO SCALE



ELEVATION SECTION
NOT TO SCALE



LETTERING DETAIL

NOTES:

1. MINOR MODIFICATIONS IN ABOVE DIMENSIONS AND MANUFACTURING CONFIGURATIONS ARE PERMISSIBLE SUBJECT TO DISTRICT APPROVAL.
2. CAST IRON FOR FRAME AND COVER SHALL BE CLASS 30 MINIMUM AS PER ASTM A-48.
3. RAISED LETTERS 1/4" HIGH TO BE CAST IN CENTER OF MANHOLE COVER.
4. BEFORE LEAVING THE FOUNDRY, THE FRAME AND COVER SHALL BE PAINTED OR DIPPED IN ASPHALT PAINT.
5. MANHOLE FRAME AND COVER SHALL BE AS MANUFACTURED BY SOUTH BAY FOUNDRY, 42 N. CLUFF AVE., LODI, CA 95240, OR APPROVED EQUAL.
6. FRAME AND COVER BEARING SURFACES SHALL BE MACHINED TO ASSURE CLOSE, QUIET FIT.

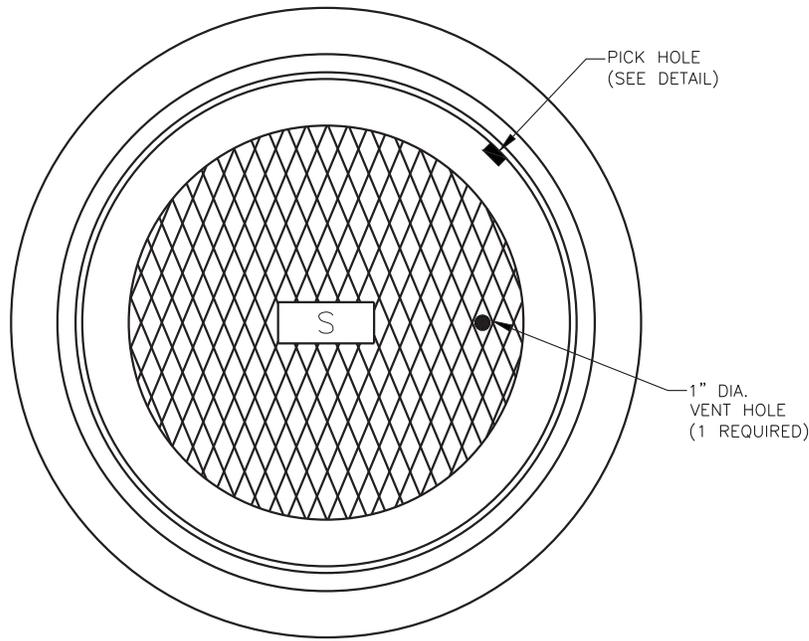
Date 3/15/17 Detail No. 9

Approved 18 of 258
PAUL R. ELDREDGE, RCE 60211

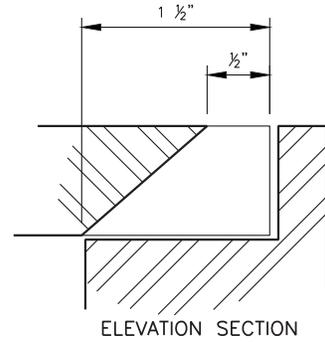


UNION SANITARY DISTRICT

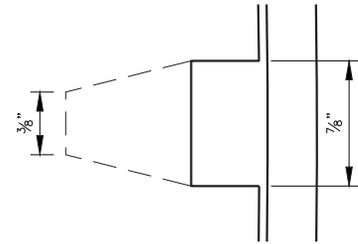
**PRIVATE MANHOLE
FRAME AND COVER**



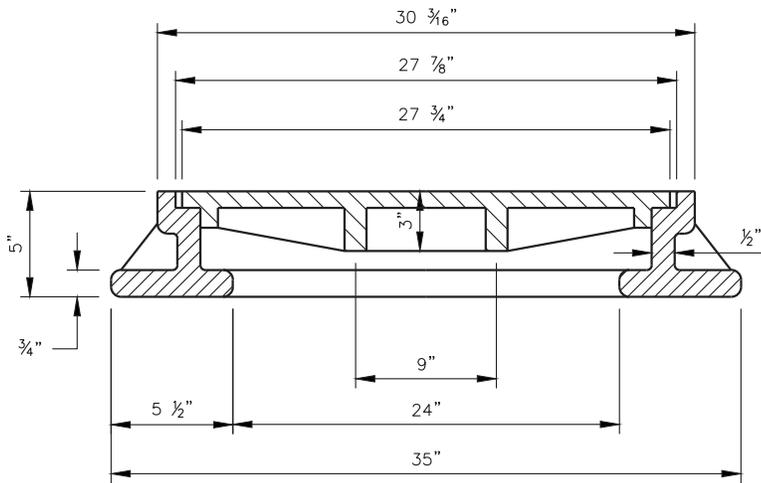
PLAN SECTION
NOT TO SCALE



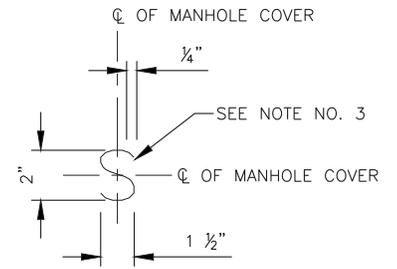
ELEVATION SECTION



PICK HOLE DETAIL
NOT TO SCALE



ELEVATION SECTION
NOT TO SCALE



LETTERING DETAIL

NOTES:

1. MINOR MODIFICATIONS IN ABOVE DIMENSIONS AND MANUFACTURING CONFIGURATIONS ARE PERMISSIBLE SUBJECT TO DISTRICT APPROVAL.
2. CAST IRON FOR FRAME AND COVER SHALL BE CLASS 30 MINIMUM AS PER ASTM A-48.
3. RAISED LETTERS 1/4" HIGH TO BE CAST IN CENTER OF MANHOLE COVER.
4. BEFORE LEAVING THE FOUNDRY, THE FRAME AND COVER SHALL BE PAINTED OR DIPPED IN ASPHALT PAINT.
5. MANHOLE FRAME AND COVER SHALL BE AS MANUFACTURED BY SOUTH BAY FOUNDRY, 42 N. CLUFF AVE., LODI, CA 95240, OR APPROVED EQUAL.
6. FRAME AND COVER BEARING SURFACES SHALL BE MACHINED TO ASSURE CLOSE, QUIET FIT.

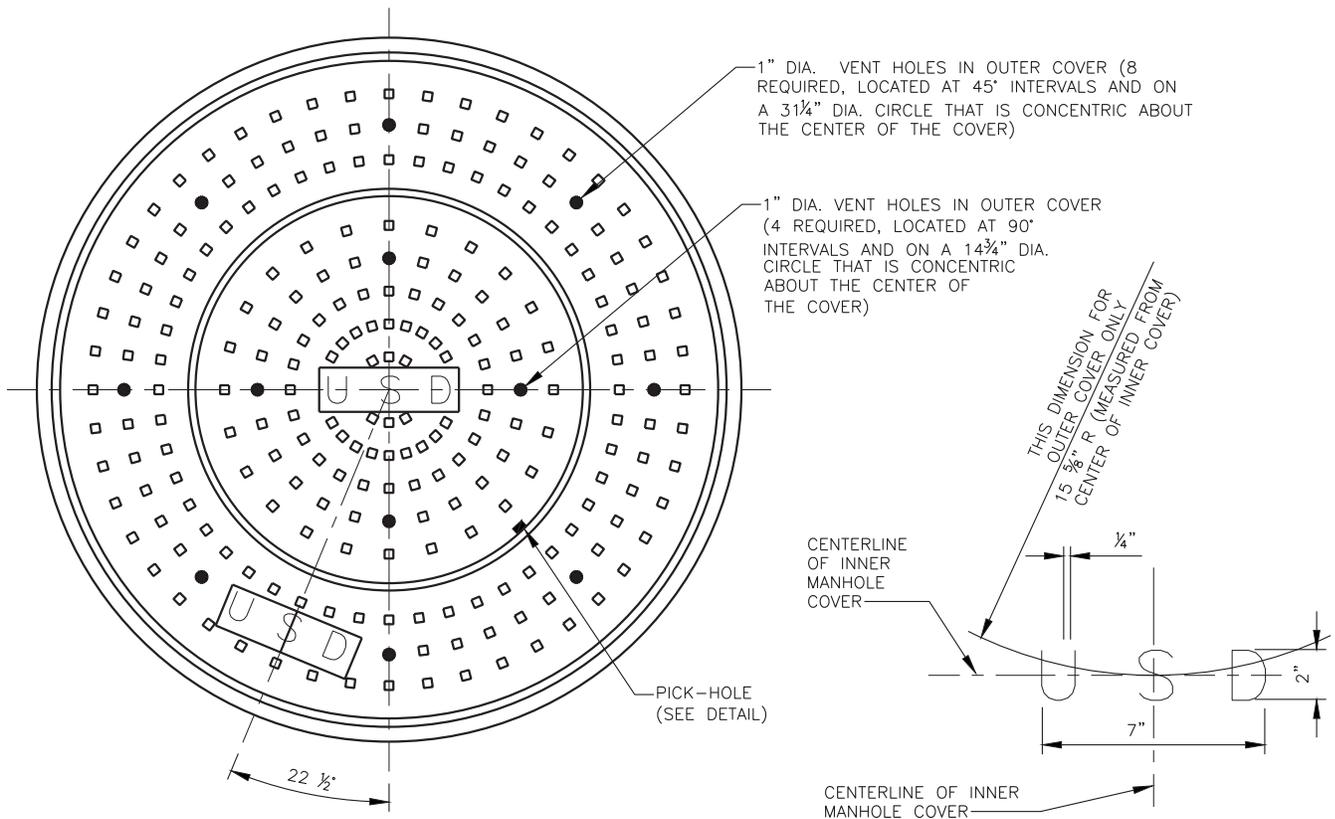
Date 3/15/17 Detail No. 10

Approved 14 of 258
PAUL R. ELDREDGE, RCE 60211

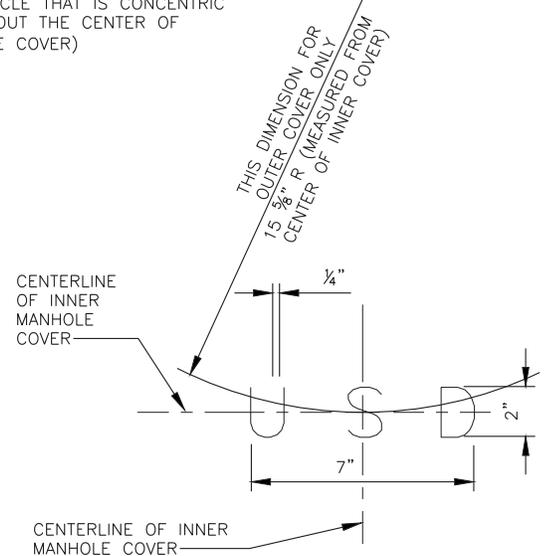


UNION SANITARY DISTRICT

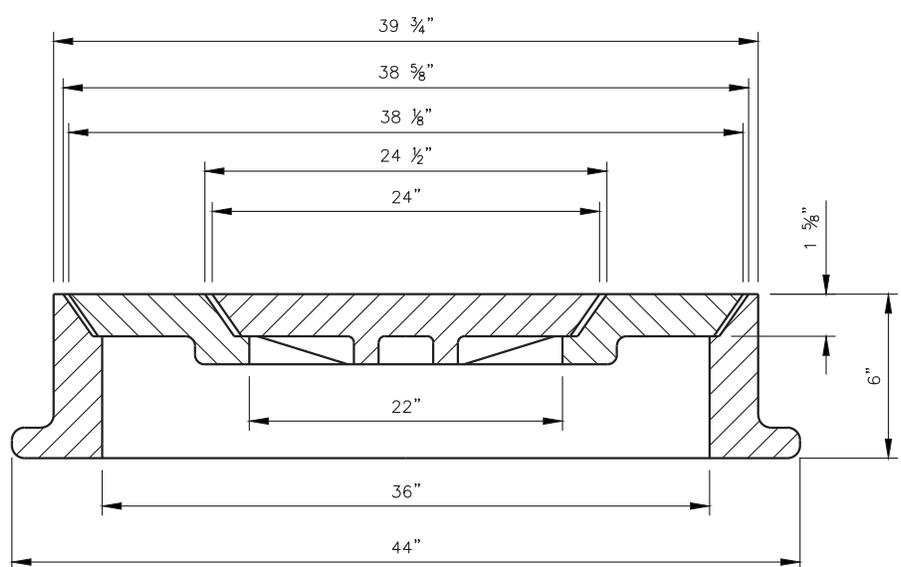
**PRIVATE CONTROL MANHOLE
FRAME AND COVER**



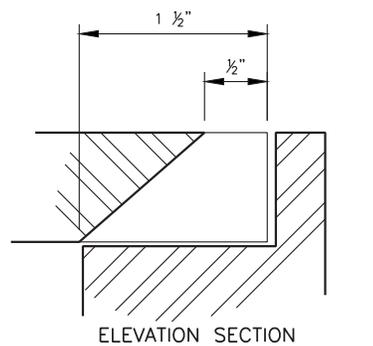
PLAN SECTION
NOT TO SCALE



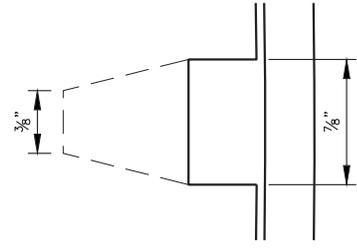
LETTERING DETAIL



ELEVATION SECTION
NOT TO SCALE



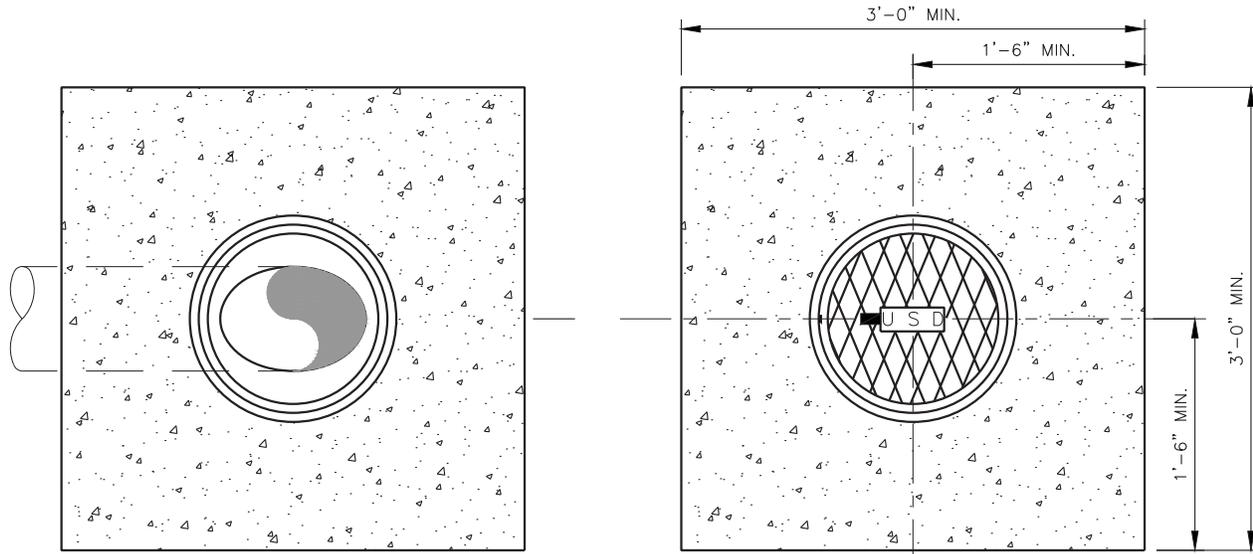
ELEVATION SECTION



PICK HOLE DETAIL
NOT TO SCALE

- NOTES:
1. CAST IRON FOR FRAME AND COVER SHALL BE CLASS 30 MINIMUM AS PER ASTM A-48.
 2. RAISED LETTERS 1/4" HIGH TO BE CAST IN CENTER OF MANHOLE COVER.
 3. MINOR MODIFICATIONS IN ABOVE DIMENSIONS AND MANUFACTURING CONFIGURATIONS ARE PERMISSIBLE SUBJECT TO DISTRICT APPROVAL.
 4. BEFORE LEAVING THE FOUNDRY, THE FRAME AND COVERS SHALL BE PAINTED OR DIPPED IN ASPHALT PAINT.
 5. MANHOLE FRAME AND COVER SHALL BE AS MANUFACTURED BY SOUTH BAY FOUNDRY, 42 N. CLUFF AVE., LODI, CA 95240, OR APPROVED EQUAL.
 6. FRAME AND COVER BEARING SURFACES SHALL BE MACHINED TO ASSURE CLOSE, QUIET FIT.



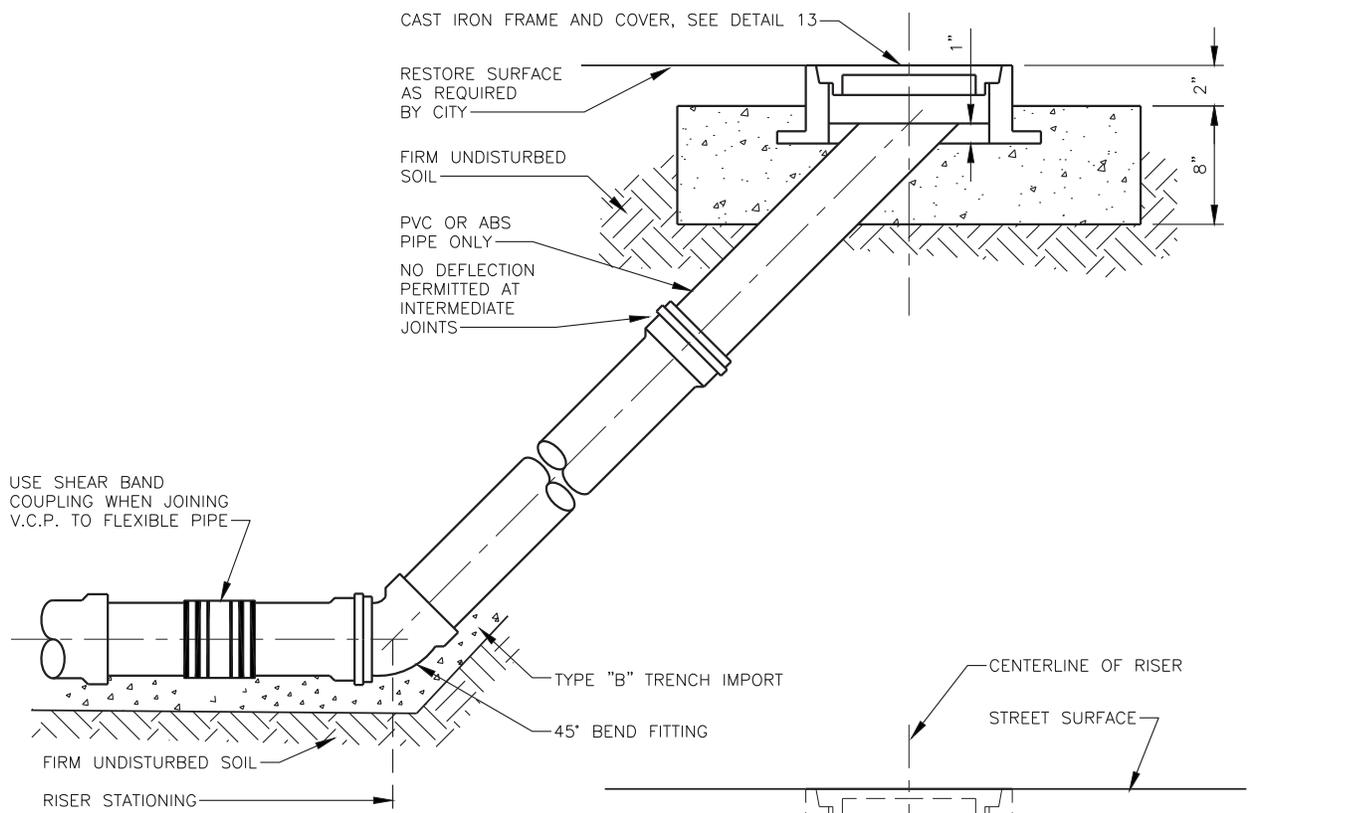


PLAN SECTION WITHOUT LID

NOT TO SCALE

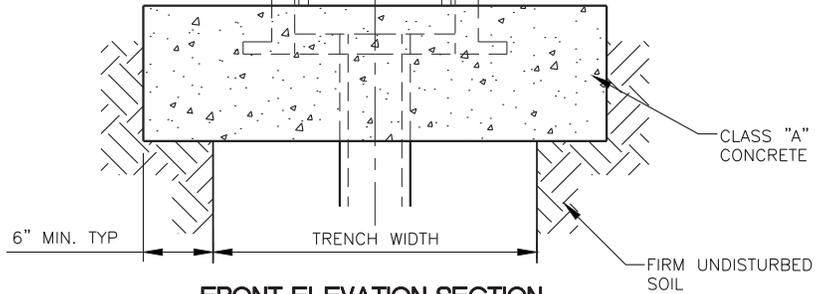
PLAN SECTION

NOT TO SCALE



SIDE ELEVATION SECTION

NOT TO SCALE



FRONT ELEVATION SECTION

NOT TO SCALE

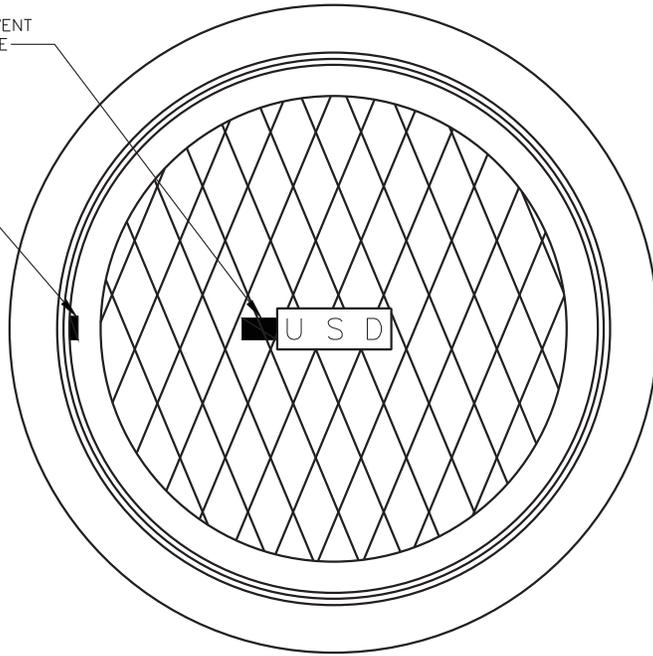
NOTES:

1. THIS DETAIL IS ONLY APPLICABLE FOR REPLACING EXISTING RISERS, IF APPROVED BY DISTRICT ENGINEER.
2. THIS DETAIL IS NOT INTENDED TO BE USED FOR CONSTRUCTION OF NEW SEWER SYSTEMS.



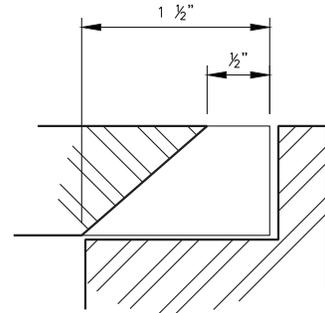
COMBINATION VENT
AND PICK HOLE

PICK HOLE

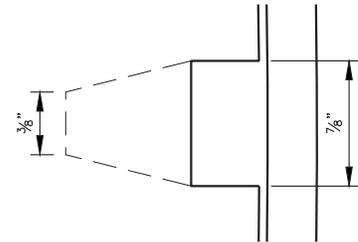


PLAN SECTION

NOT TO SCALE



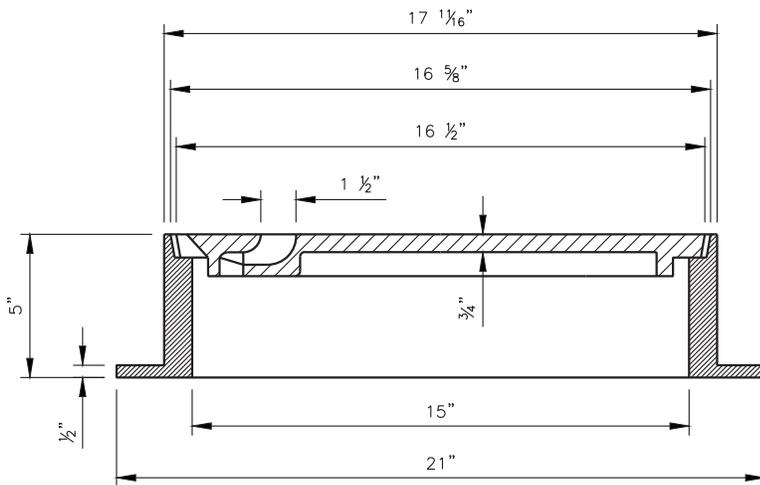
ELEVATION SECTION



PLAN SECTION

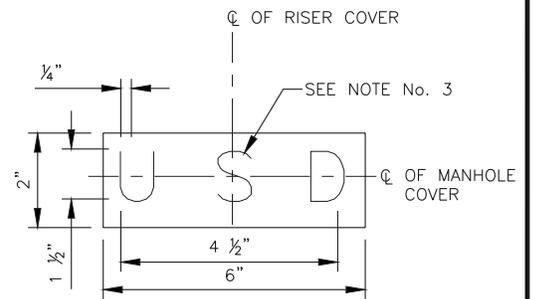
PICK HOLE DETAIL

NOT TO SCALE



ELEVATION SECTION

NOT TO SCALE



LETTERING DETAIL

NOTES:

1. MINOR MODIFICATIONS IN ABOVE DIMENSIONS AND MANUFACTURING CONFIGURATIONS ARE PERMISSIBLE SUBJECT TO DISTRICT APPROVAL.
2. CAST IRON FOR FRAME AND COVER SHALL BE CLASS 30 MINIMUM AS PER ASTM A-48.
3. RAISED LETTERS 1/4" HIGH TO BE CAST IN CENTER OF MANHOLE COVER.
4. BEFORE LEAVING THE FOUNDRY, THE FRAME AND COVER SHALL BE PAINTED OR DIPPED IN ASPHALT PAINT.
5. SEE UNION SANITARY DISTRICT STANDARD DETAIL NO. 12 FOR INSTALLATION REQUIREMENTS.
6. MANHOLE FRAME AND COVER SHALL BE AS MANUFACTURED BY SOUTH BAY FOUNDRY, 42 N. CLUFF AVE., LODI, CA 95240, OR APPROVED EQUAL.
7. FRAME AND COVER BEARING SURFACES SHALL BE MACHINED TO ASSURE CLOSE, QUIET FIT.

Date 3/15/17 Detail No. 13

Approved 17 of 258
PAUL R. ELDREDGE, RCE 60211

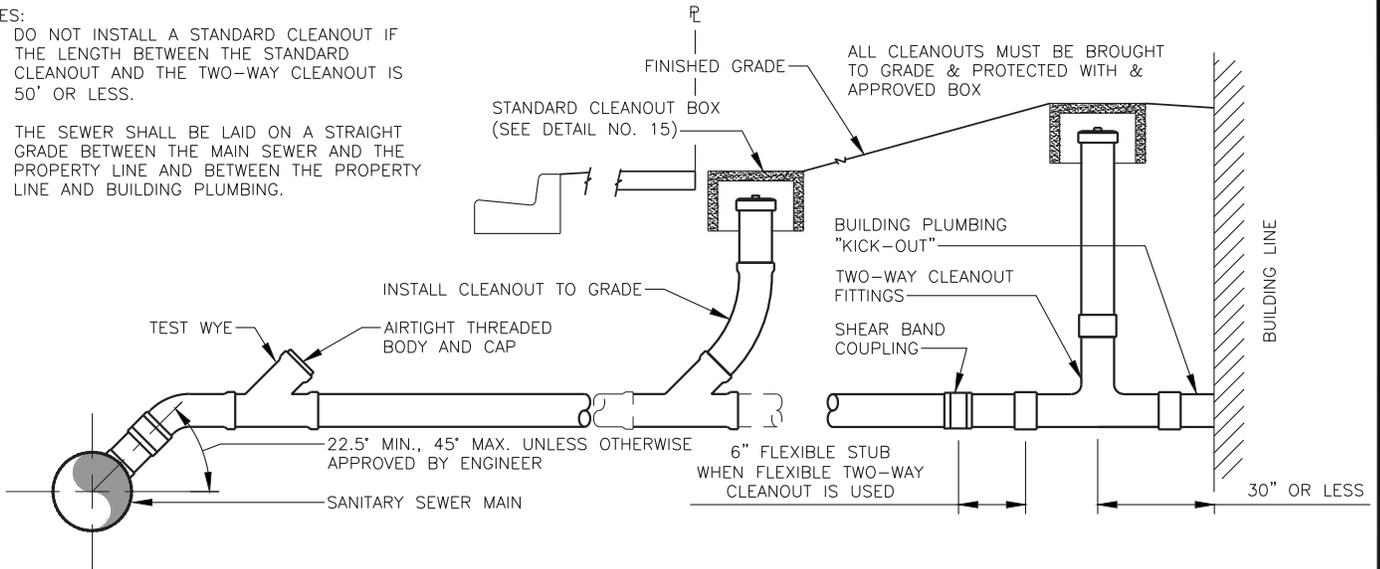


UNION SANITARY DISTRICT

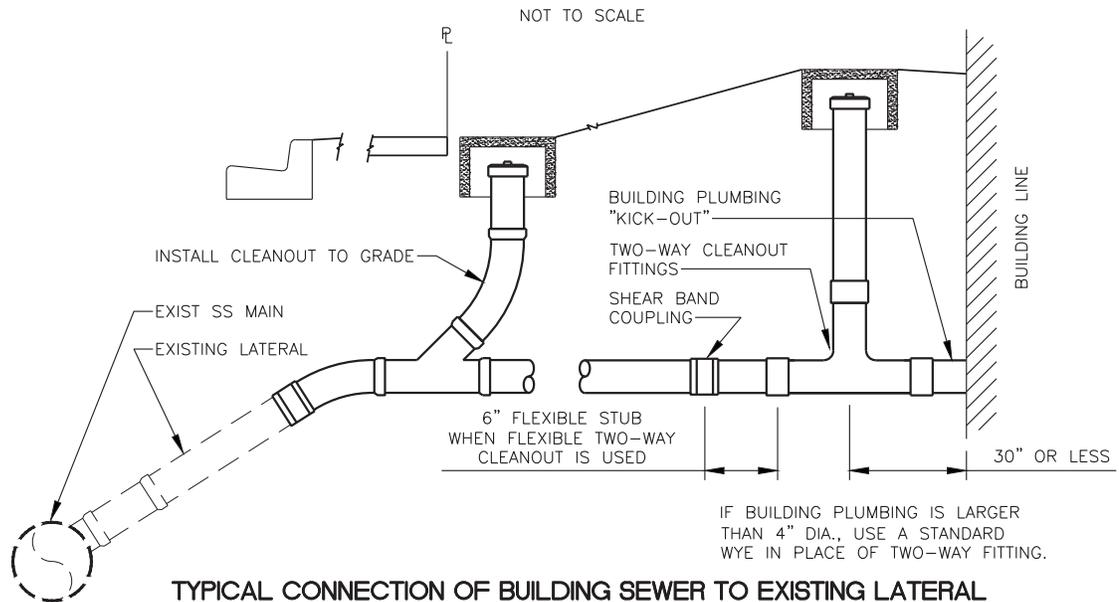
**RISER FRAME AND COVER FOR
6", 8" AND 10" DIAMETER PIPE**

NOTES:

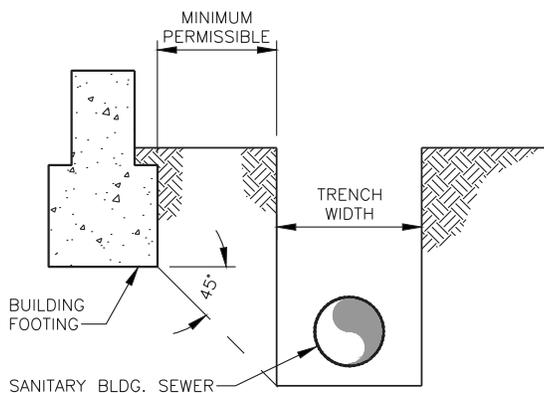
- DO NOT INSTALL A STANDARD CLEANOUT IF THE LENGTH BETWEEN THE STANDARD CLEANOUT AND THE TWO-WAY CLEANOUT IS 50' OR LESS.
- THE SEWER SHALL BE LAID ON A STRAIGHT GRADE BETWEEN THE MAIN SEWER AND THE PROPERTY LINE AND BETWEEN THE PROPERTY LINE AND BUILDING PLUMBING.



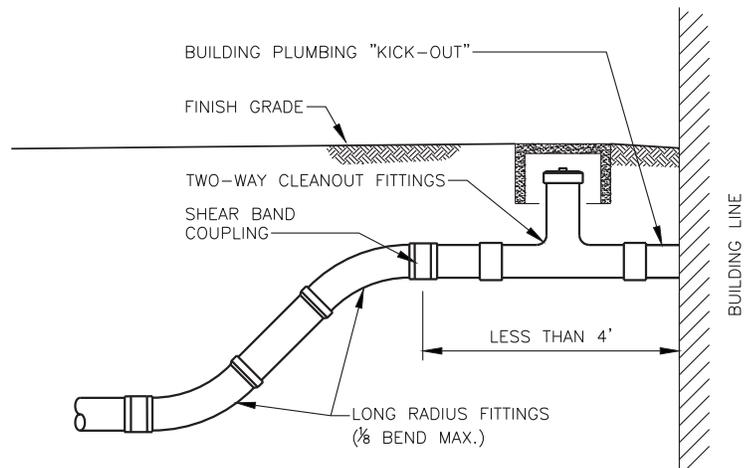
TYPICAL CONNECTION OF BUILDING SEWER TO EXISTING MAIN SEWER



TYPICAL CONNECTION OF BUILDING SEWER TO EXISTING LATERAL



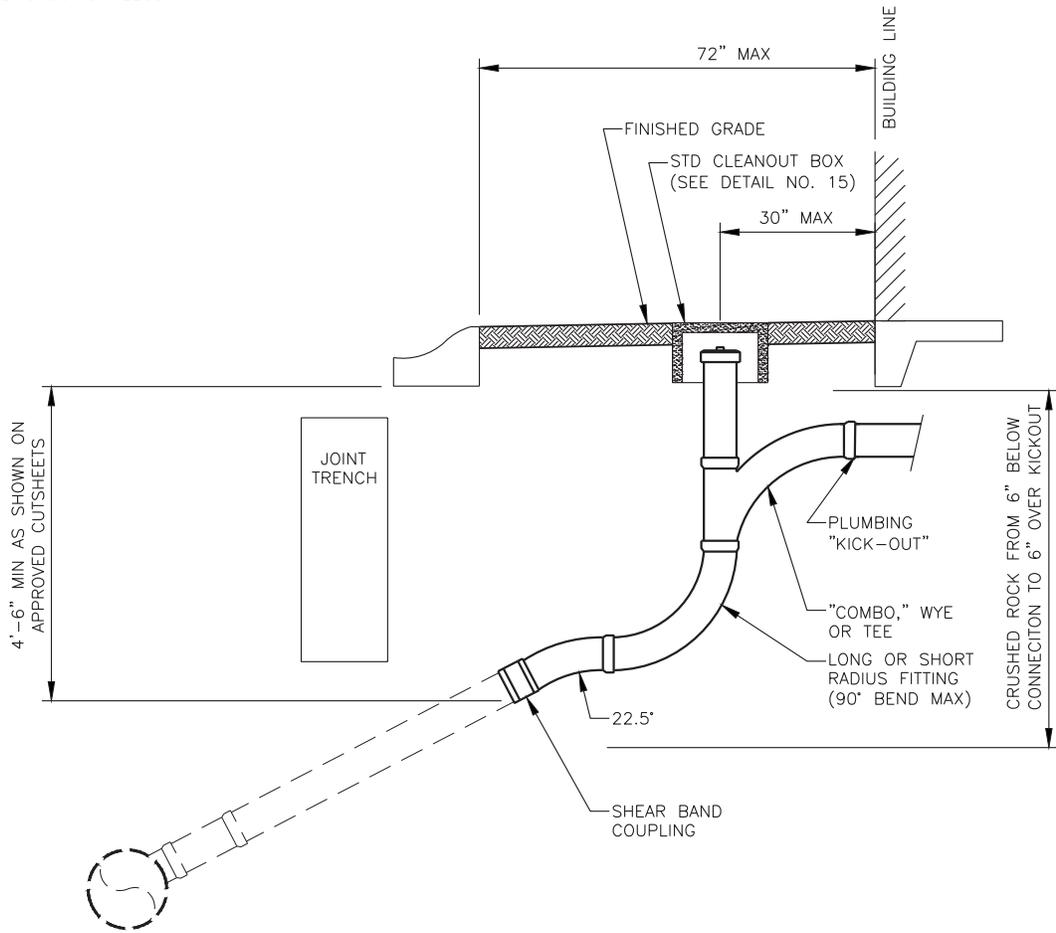
DETAIL - BUILDING SEWER ADJACENT TO BUILDING FOOTING



TYPICAL CONNECTION TO BUILDING SEWER FOR SHALLOW BUILDING PLUMBING "KICK-OUT"

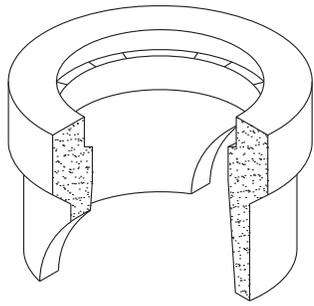
NOTES:

1. THIS DETAIL MAY APPLY WHEN PROPERTY LINE IS 6' OR LESS FROM BUILDING AND THERE IS AN END RUN CLEANOUT IN THE BUILDING PLUMBING.
2. THE SEWER SHALL BE LAID ON A STRAIGHT GRADE BETWEEN THE MAIN SEWER AND THE PROPERTY LINE.
3. DO NOT INSTALL A PROPERTY LINE CLEANOUT IF THE LENGTH BETWEEN THE PROPERTY LINE AND THE COMBO WYE IS 50' OR LESS.



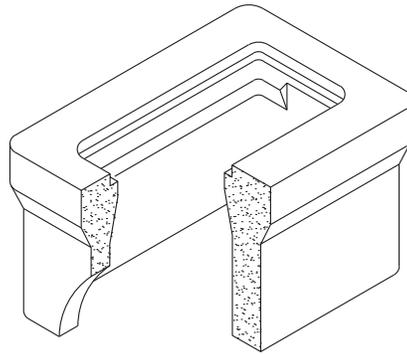
**BUILDING SEWER CONNECTION
FOR ZERO LOT LINE BUILDING PLUMBING "KICK-OUT"**

NOT TO SCALE



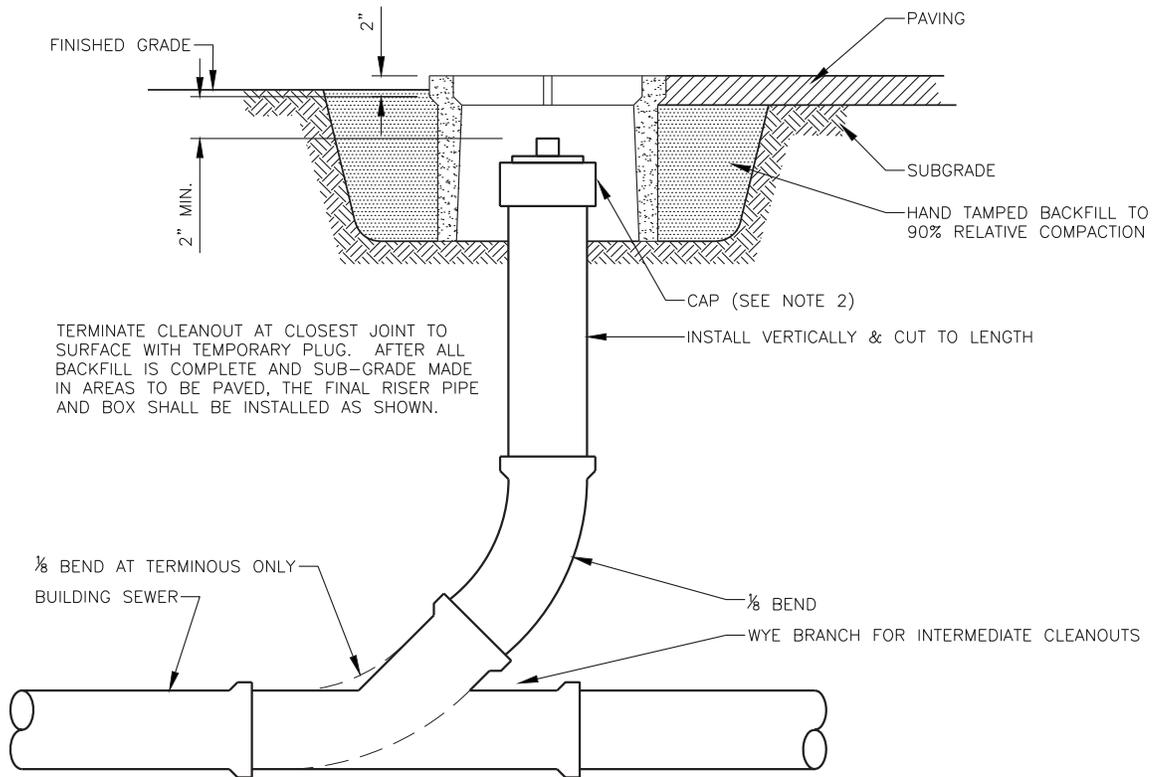
CIRCULAR CONCRETE BOX

NOT TO SCALE



RECTANGULAR CONCRETE BOX

NOT TO SCALE



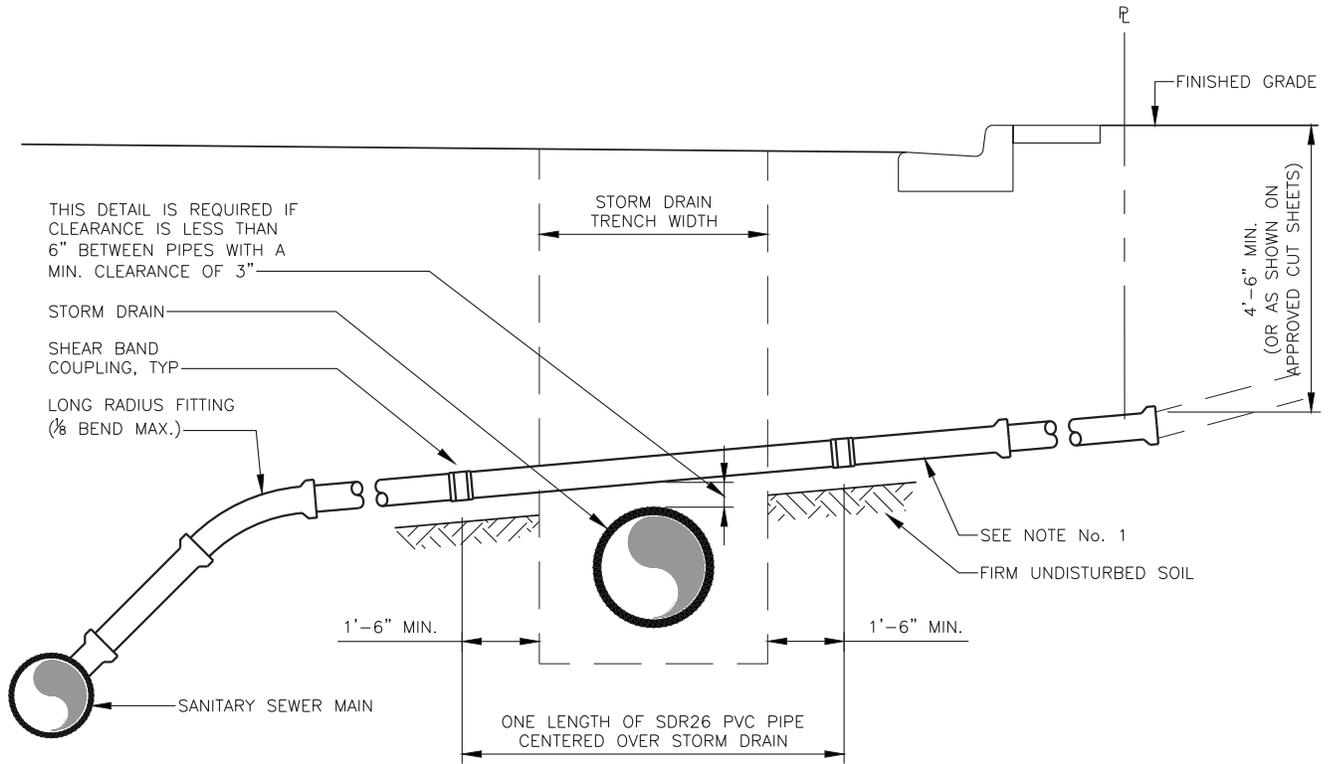
TERMINATE CLEANOUT AT CLOSEST JOINT TO SURFACE WITH TEMPORARY PLUG. AFTER ALL BACKFILL IS COMPLETE AND SUB-GRADE MADE IN AREAS TO BE PAVED, THE FINAL RISER PIPE AND BOX SHALL BE INSTALLED AS SHOWN.

ELEVATION

NOT TO SCALE

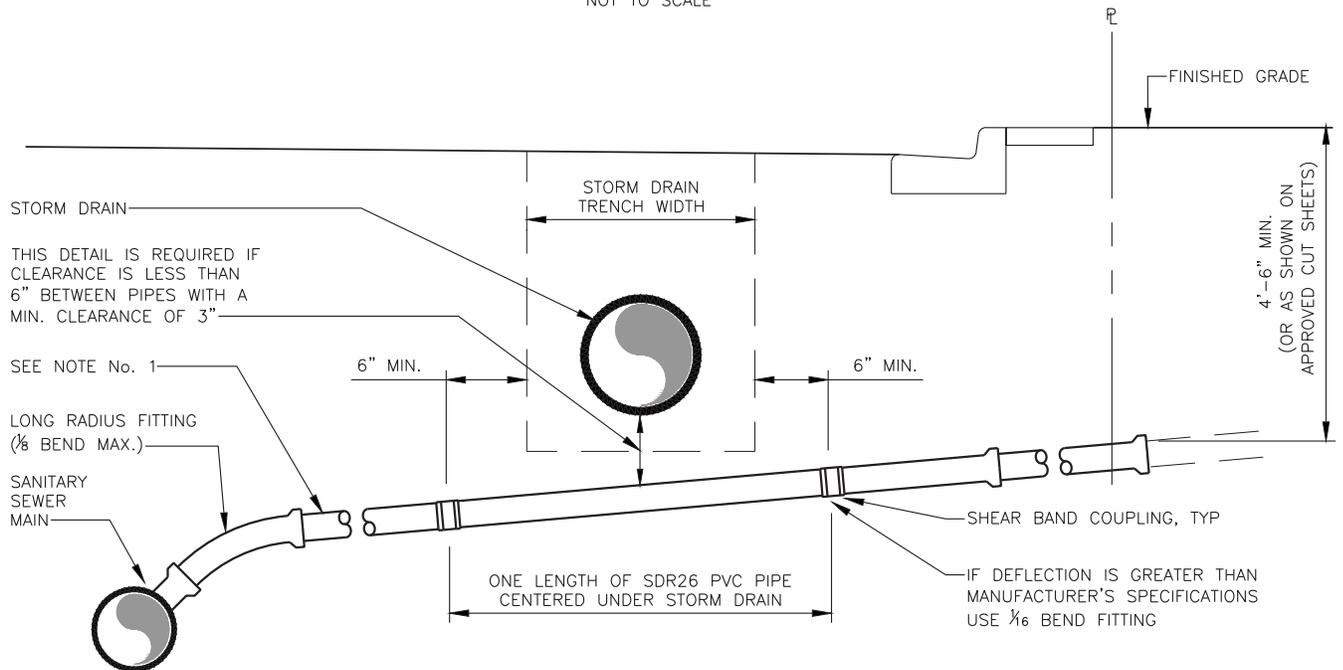
NOTES:

1. RECTANGULAR OR CIRCULAR BOXES ARE PERMITTED.
2. CLEANOUT CAPS SHALL CONSIST OF AN AIRTIGHT THREADED BODY AND CAP.
3. CIRCULAR BOXES INSTALLED IN SIDEWALK AND WALKWAY AREAS SHALL HAVE A SOLID METAL COVER WITHOUT HOLES.
4. APPROVED RECTANGULAR BOXES ARE:
 - a) CHRISTY CONCRETE PRODUCTS: B3 BOX WITH A B3D CONCRETE LID OR A B3C METAL LID OR
 - b) BROOKS PRODUCTS, INC.: No. 3 METER BOX WITH A No. 3 HEAVY DUTY CONCRETE LID OR A No. 3 CAST IRON TRAFFIC LID. OR AN APPROVED EQUAL.
5. CONCRETE LIDS ARE ACCEPTABLE FOR USE IN LANDSCAPE AREAS, WHILE METAL LIDS MUST BE USED ELSEWHERE.
6. ALL CLEANOUT BOX LIDS SHALL BE MARKED WITH A LETTER "S" OR THE WORD "SEWER".



TYPICAL CROSSING OVER STORM DRAIN

NOT TO SCALE

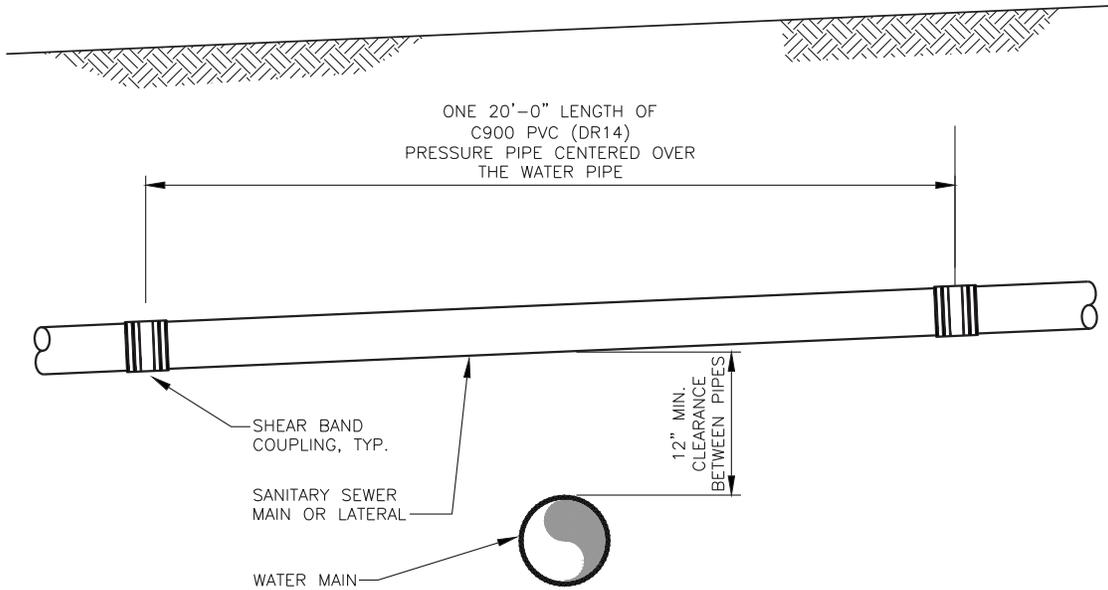


TYPICAL CROSSING UNDER STORM DRAIN

NOT TO SCALE

NOTES:

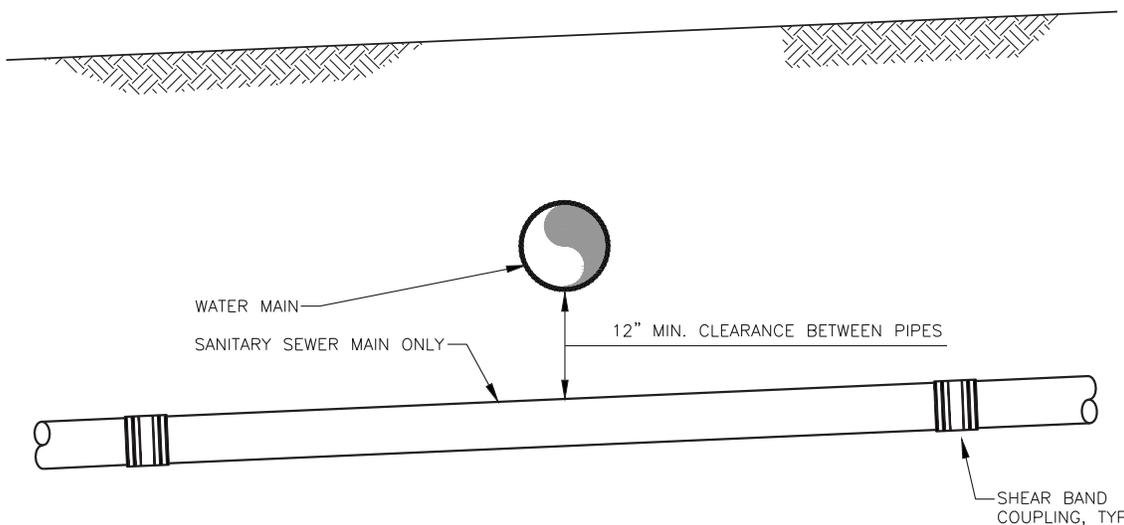
1. THE ABOVE DETAILS ARE TYPICAL FOR MAIN AND BUILDING SEWER WHEN VCP PIPE MATERIAL IS USED.
2. THIS TYPE OF CROSSING MAY BE REQUIRED BY UNION SANITARY DISTRICT WHEN CROSSING CERTAIN OTHER UTILITIES.
3. THE BOTTOM DETAIL IS TYPICAL FOR MAIN AND BUILDING SEWER WHEN PVC PIPE IS USED UNDER STORM SEWER PIPE 48 INCHES IN DIAMETER OR LARGER.



TYPICAL CROSSING OVER WATER MAIN

NOT TO SCALE

NOTE: REQUIRED WHENEVER A SANITARY SEWER MAIN OR LATERAL CROSSES OVER A WATER MAIN



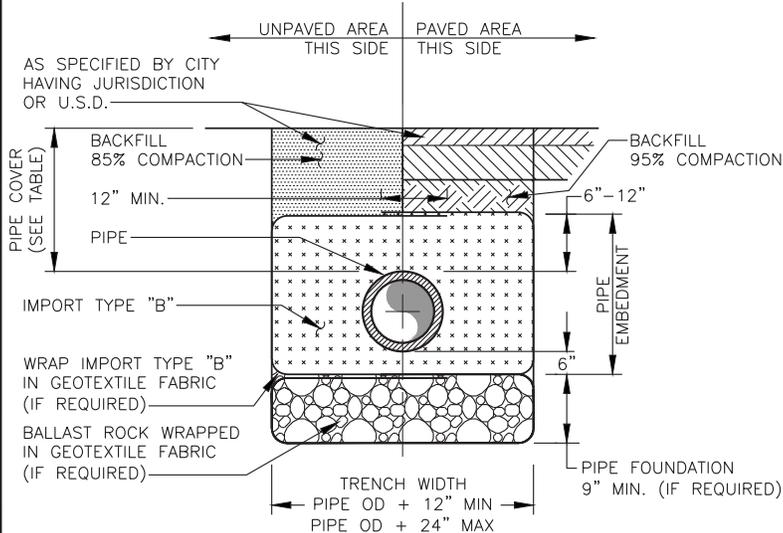
TYPICAL CROSSING UNDER WATER MAIN

NOT TO SCALE

PIPE COVER LIMITATION TABLE				
PIPE SPECIFICATION - SEE SEC. 5			COVER IN FEET MIN - MAX**	
MATERIAL	TYPE AND MINIMUM CLASS		DETAIL A	DETAIL B
BUILDING SEWERS				
FROM PROPERTY LINE TO BUILDING IN UNPAVED PRIVATE PROPERTY				
4"-6"	VCP***		-	2.0 - 30
4"-6"	ABS	SOLID WALL	-	2.0 - 30
4"-6"	DIP	DUCTILE (CLASS 50 & 51)	-	0.5 - 30
4"-6"	PVC	SOLID WALL (C900-16 DR18)	-	1.0 - 30
4"-6"	PVC	SOLID WALL (CLASS SDR26)	-	2.0 - 30
4"-6"	HDPE	SOLID WALL (CLASS SDR17)	-	1.0 - 30
BUILDING SEWERS				
IN PUBLIC UTILITY & U.S.D. EASEMENTS, PUBLIC RIGHTS OF WAY & PAVED PRIVATE PROPERTY				
4"-6"	VCP***		3.0 - 19	-
4"-6"	DIP	DUCTILE (CLASS 50 & 51)	0.5 - 30	-
4"-6"	ABS	SOLID WALL	3.0 - 30	-
4"-6"	PVC	SOLID WALL (CLASS SDR26)	3.0 - 30	-
4"-6"	PVC	SOLID WALL (C900-16 DR14)	1.0 - 30	-
4"-6"	HDPE	SOLID WALL (CLASS SDR17)	1.0 - 30	-
MAIN SEWERS				
IN PUBLIC UTILITY & U.S.D. EASEMENTS, PUBLIC RIGHTS OF WAY & PAVED PRIVATE PROPERTY				
8"-Larger	VCP***		3.0 - 14	-
8"-Larger	DIP	DUCTILE (CLASS 50 & 51)	0.5 - 30	-
8"-Larger	PVC	SOLID WALL (CLASS SDR26)	3.0 - 30	-
8"-Larger	PVC	SOLID WALL (C900-16 DR14)	1.0 - 30	-

**WHEN MAXIMUM COVER IS EXCEEDED, APPROVAL BY U.S.D. OF SPECIAL BEDDING REQUIREMENTS IS NECESSARY.
***ONLY ALLOWED WITH SPECIAL PERMISSION FROM DISTRICT ENGINEER.

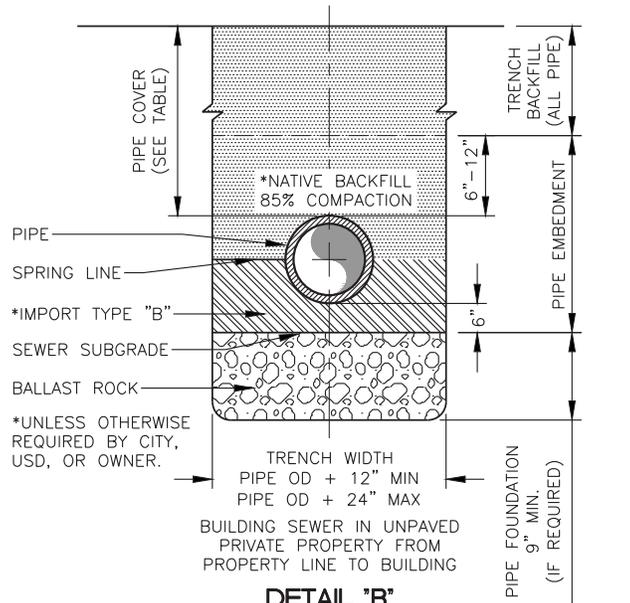
MINIMUM SIZE AND SLOPE LIMITATION TABLE			
SPECIFICATION - SEE SEC. 21 & 22			
PIPE DIAMETER	MINIMUM SLOPE (FT. PER FT.)	COMMENTS	MAXIMUM FIXTURE UNITS
BUILDING SEWER			
FROM SEWER MAIN TO BUILDING			
4"	0.020	IF MAIN IS NOT OF ADEQUATE DEPTH 0.01 FT/FT IS MINIMUM.	200
6"	0.005		600
6"	0.006		700
6"	0.007		800
6"	0.008		900
6"	0.009		1000
6"	0.010		1200
MAIN SEWERS			
8"	0.0034		---
10"	0.0026		---
12"	0.0020		---
15"	0.0015		---
18"	0.0012		---



MAIN & BUILDING SEWERS IN
PUBLIC UTILITY & USD
EASEMENTS, PUBLIC RIGHTS
OF WAY & PAVED PRIVATE
PROPERTY

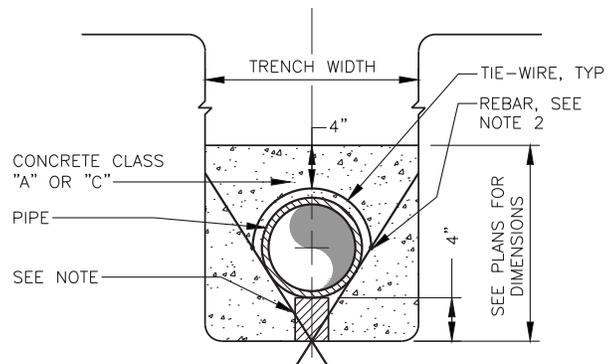
DETAIL 'A'

NOT TO SCALE



DETAIL 'B'

NOT TO SCALE



CONCRETE ENCASUREMENT DETAIL

NOT TO SCALE

- NOTES:
1. CONCRETE BLOCK OR BRICK ON FIRM UNDISTURBED GROUND BEFORE CONCRETE ENCASUREMENT IS POURED.
 2. INSTALL REBAR AS NECESSARY TO PREVENT PIPE FLOTATION DURING CONCRETE POUR.

Date 3/15/17 Detail No. 18A

Approved 128 of 258
PAUL R. ELDREDGE, RCE 60211



UNION SANITARY DISTRICT

SEWER PIPE INSTALLATION (COVER,
SLOPE, SPECIAL BEDDING AND
ENCASUREMENT REQUIREMENTS)

18A

PIPE FOUNDATION (IF REQUIRED BY ENGINEER)

ROCK BALLAST:

ROCK BALLAST SHALL BE 1-½" BY ¾" GRAVEL CONFORMING TO THE FOLLOWING GRADATIONS:

SIEVE SIZE	PERCENT PASSING (BY WEIGHT)
2"	100
1-½"	95-100
¾"	5-30
⅝"	5-20
NO. 200	0-4

PIPE EMBEDMENT MATERIAL

IMPORT "TYPE A":

SHALL BE CREEK OR BANK GRAVEL, CRUSHED GRAVEL, CRUSHED ROCK, BANK RUN ROCK OR A MIXTURE OF THESE MATERIALS. RECLAIMED OR RECYCLED MATERIALS ARE NOT ACCEPTABLE.

THE MATERIAL SHALL BE FREE FROM ROOTS, VEGETABLE MATTER, OR OTHER DELETERIOUS SUBSTANCE AND SHALL BE OF SUCH NATURE AND SO GRADED THAT IT WILL BIND READILY WHEN WATERED AND COMPACTED TO THE REQUIREMENT SPECIFIED HEREIN.

THE MATERIAL SHALL BE OF SUCH SIZE THAT THE PERCENTAGE COMPOSITION BY WEIGHT, AS DETERMINED BY LABORATORY SIEVES, WILL CONFORM TO THE FOLLOWING GRADATIONS:

SIEVE SIZE	PERCENT PASSING (BY WEIGHT)
1"	100
¾"	90-100
NO. 4	35-100
NO. 30	10-30
NO. 200	2-9

THE MATERIAL SHALL ALSO HAVE A MINIMUM SAND EQUIVALENT OF 22 AND A MINIMUM RESISTENCE (R) VALUE OF 78.

IMPORT "TYPE B":

"TYPE B" IMPORT SHALL BE WASHED CRUSHED ROCK (CHIPS). THIS MATERIAL SHALL CONTAIN AT LEAST 75% OF THE PARTICLES HAVING ONE OR MORE FRACTURED FACES. NOT OVER 25% SHALL BE PIECES THAT SHOW NO SUCH FACES RESULTING FROM CRUSHING. ROCK WILL BE DESIGNATED BY NORMAL SIZE. RECLAIMED OR RECYCLED MATERIALS ARE NOT ACCEPTABLE.

THE MATERIAL SHALL BE OF SUCH SIZE THAT THE PERCENTAGE COMPOSITION BY WEIGHT, AS DETERMINED BY LABORATORY SIEVES WILL CONFORM TO THE FOLLOWING GRADATIONS:

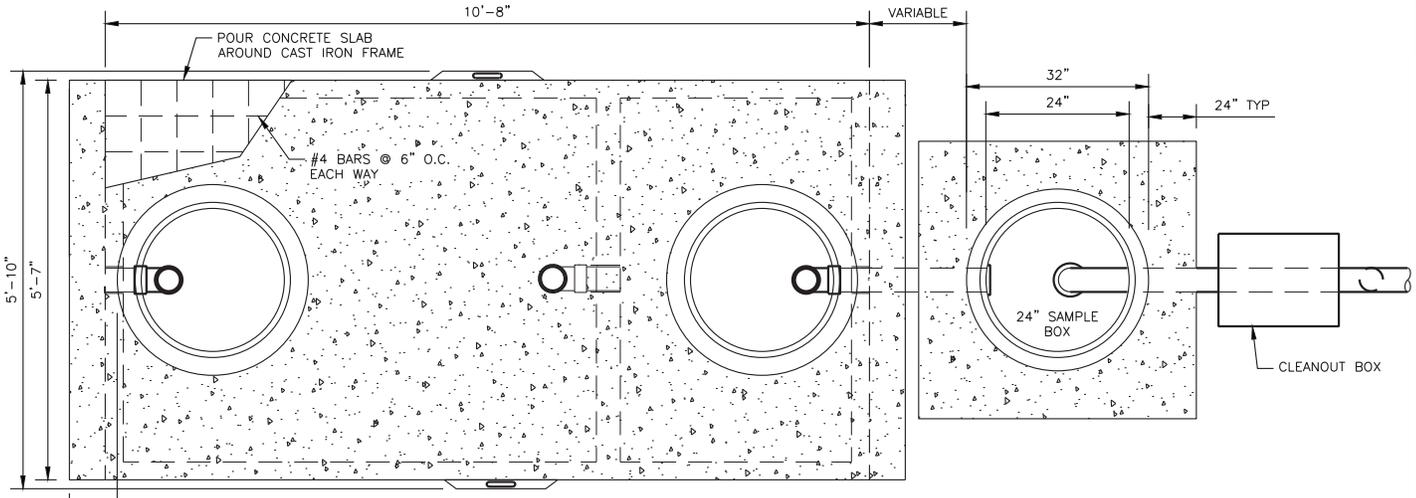
SIEVE SIZE	PERCENT PASSING (BY WEIGHT)
1"	100
¾"	90-100
NO. 4	0-15
NO. 200	0-4

TRENCH EXCAVATION MATERIAL:

ACCEPTABLE TRENCH EXCAVATION MATERIAL SHALL BE THAT MATERIAL WHICH IS FREE FROM VEGETABLE MATTER AND REFUSE AND SHALL CONTAIN NO CONCRETE, STONES OR CLODS LARGER THAN ¾" IN DIAMETER AND SHALL CONTAIN SUFFICIENT FINES SO THAT ALL VOIDS WILL BE FILLED WHEN COMPACTED.

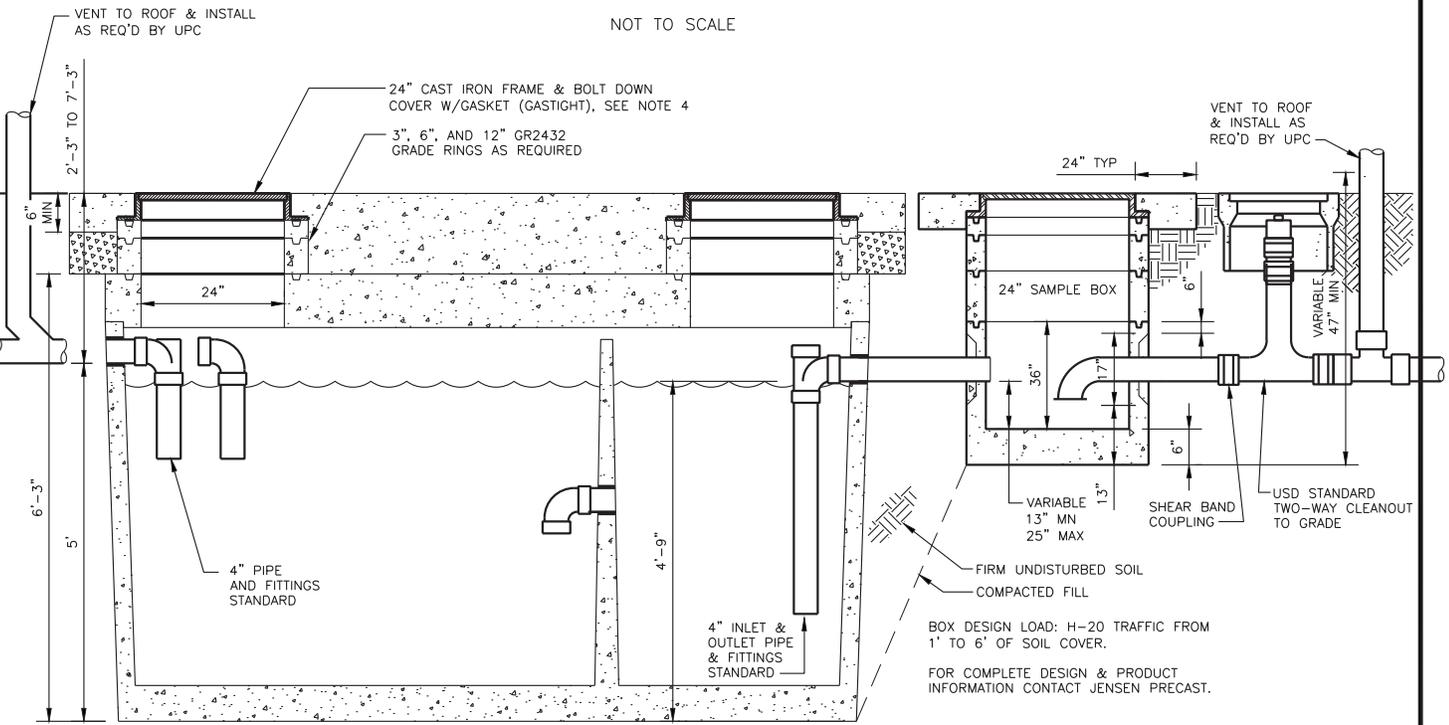


NOTE TO ENGINEER OR ARCHITECT
 PROVIDE 3" ELEVATION DROP BETWEEN INLET AND OUTLET PIPES THROUGH
 BOX. SHOW PIPE INVERT ELEVATIONS AT INLET AND OUTLET ON PLAN.



PLAN VIEW

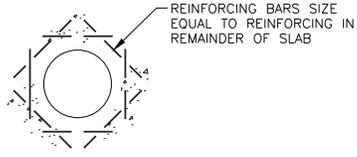
NOT TO SCALE



ELEVATION SECTION

NOT TO SCALE

- NOTES:
1. DIMENSION AS SHOWN UNLESS OTHERWISE SPECIFIED BY USD.
 2. JENSEN 1500 PRECAST BOXES AS MANUFACTURED BY JENSEN PRECAST OR AN APPROVED EQUAL.
 3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
 4. CIRCULAR LIDS SHALL BE SOUTH BAY FOUNDRY 1900-BD OR APPROVED EQUAL, WITH RAISED "S" OR "SANITARY SEWER".
 5. TANK TO BE PLACED ON TYPE "B" IMPORT.
 6. HEIGHT OF TANK ABOVE FITTINGS IS VARIABLE, 6 OR 12 INCH SECTIONS MAY BE ADDED TO REACH THE REQUIRED FINISHED GRADE. MORTAR AND BAND BOTH SIDES IN FIELD.
 7. ALL CONCRETE JOINTS SHALL BE CLEANED, WETTED AND MORTARED PRIOR TO SETTING NEXT SECTION. THE JOINTS SHALL BE PACKED, TROWELED AND BANDED SMOOTH ON BOTH SIDES OF THE BOX.

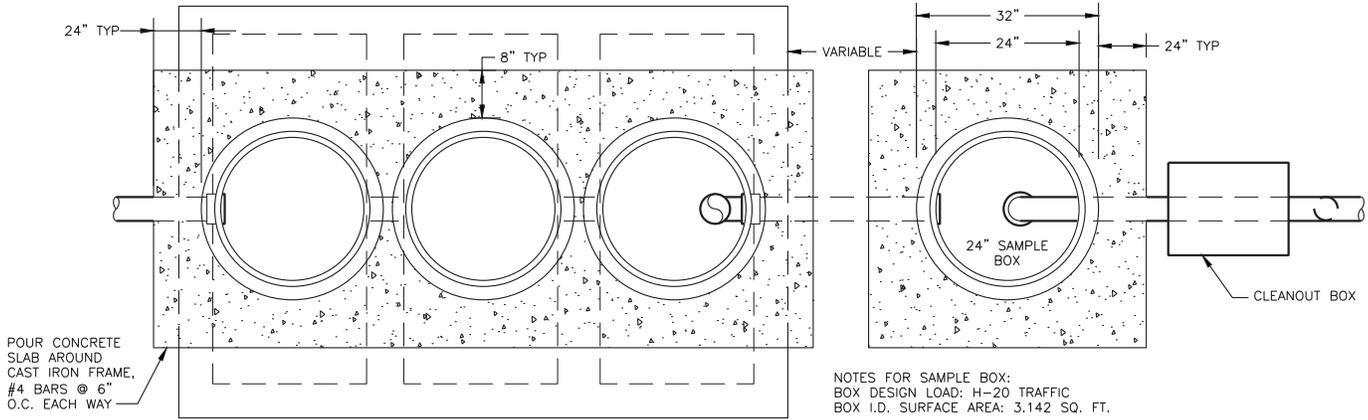


MANHOLE AREA REINFORCING DETAIL

NOT TO SCALE

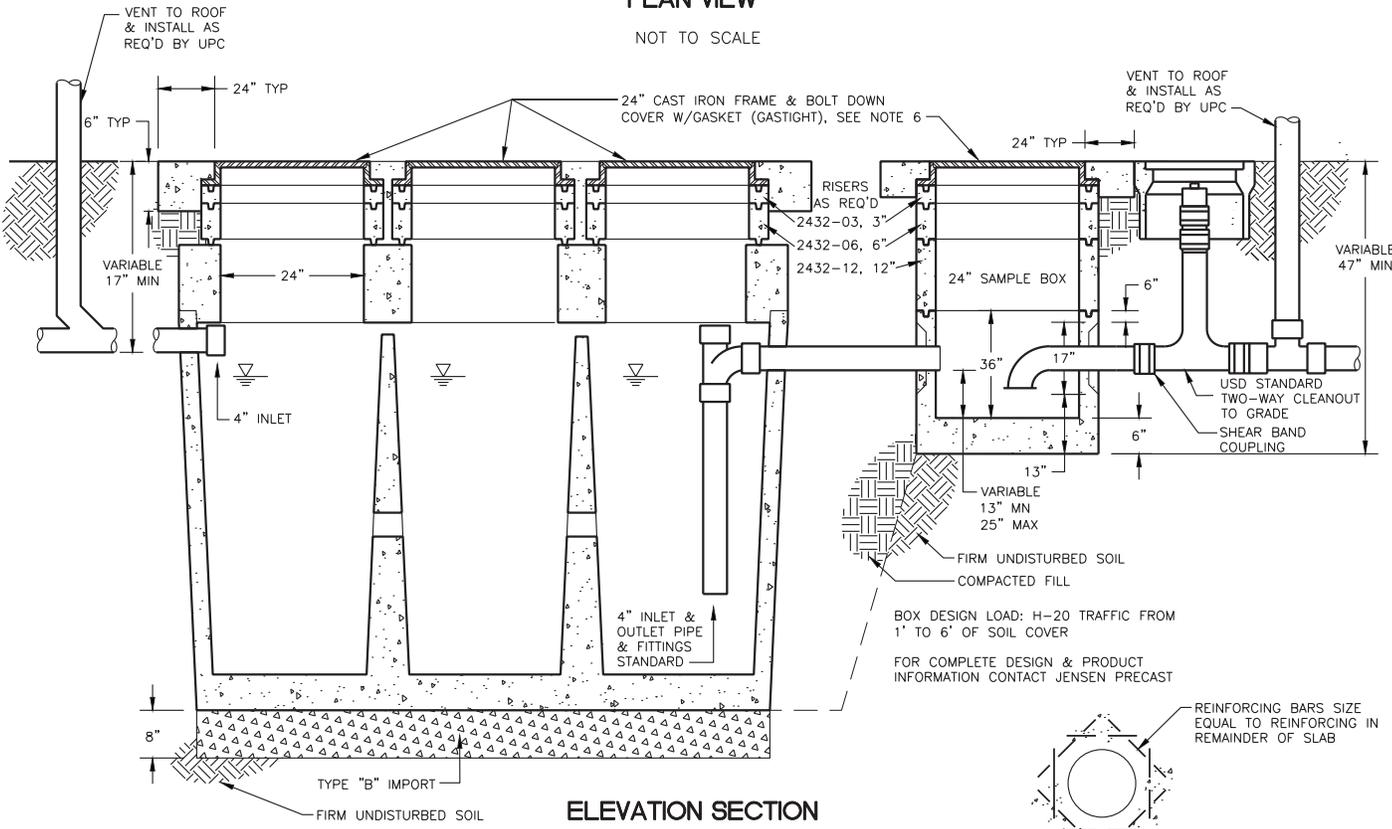


NOTE TO ENGINEER OR ARCHITECT
 PROVIDE 3" ELEVATION DROP BETWEEN INLET AND OUTLET PIPES THROUGH
 BOX. SHOW PIPE INVERT ELEVATIONS AT INLET AND OUTLET ON PLAN.



NOTES FOR SAMPLE BOX:
 BOX DESIGN LOAD: H-20 TRAFFIC
 BOX I.D. SURFACE AREA: 3,142 SQ. FT.
 SAMPLE BOX MUST BE PLACED ON SUITABLE EARTH
 IN TRAFFIC CONDITION. FOR COMPLETE DESIGN &
 PRODUCT INFORMATION CONTACT JENSEN PRECAST

PLAN VIEW
 NOT TO SCALE



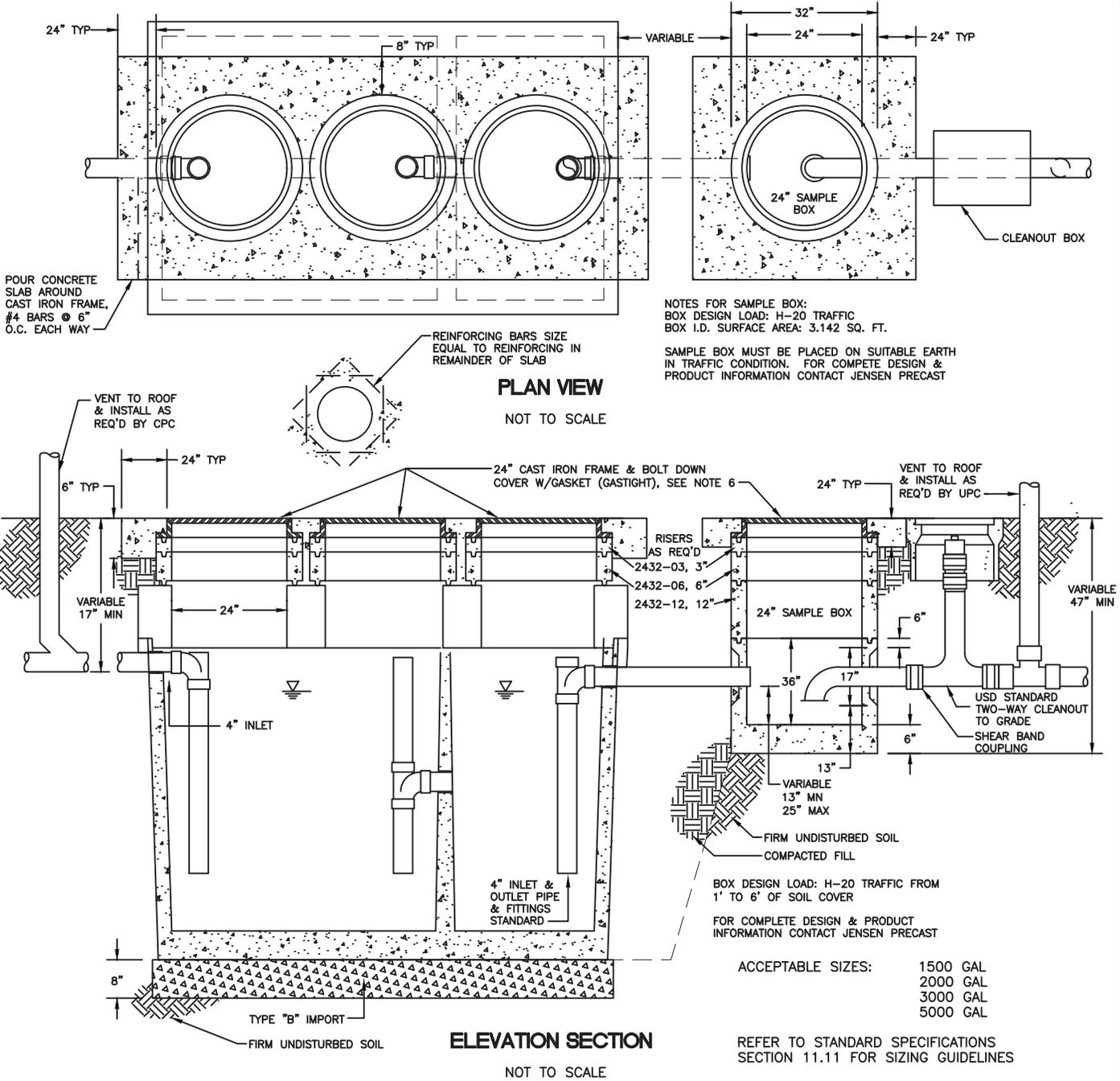
ELEVATION SECTION
 NOT TO SCALE

MANHOLE AREA REINFORCING DETAIL
 NOT TO SCALE

NOTES:

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
2. CIRCULAR LIDS SHALL BE SOUTH BAY FOUNDRY 1900-BD OR APPROVED EQUAL, WITH RAISED "S" OR "SANITARY SEWER".
3. TANK TO BE PLACED ON TYPE "B" IMPORT.
4. HEIGHT OF TANK ABOVE FITTINGS IS VARIABLE, 6 OR 12 INCH SECTIONS MAY BE ADDED TO REACH THE REQUIRED FINISHED GRADE. MORTAR AND BAND BOTH SIDES IN FIELD.
5. ALL CONCRETE JOINTS SHALL BE CLEANED, WETTED AND MORTARED PRIOR TO SETTING NEXT SECTION. THE JOINTS SHALL BE PACKED, TROWELED AND Banded SMOOTH ON BOTH SIDES OF THE BOX.
6. BOLT EACH OF THE THREE (3) COMPARTMENT COVERS DOWN TO FRAME WITH NOT LESS THAN TWO (2) 7/16" HEX HEAD STEEL BOLTS.
7. UNLESS OTHERWISE APPROVED BY THE CITY OF JURISDICTION, A VENT WILL BE REQUIRED ON THE INLET SIDE OF THE INTERCEPTOR WHEN ITS DISTANCE FROM THE VENT SYSTEM WITHIN THE BUILDING IS GREATER THAN 10 FEET. VENT PIPES ON THE INLET SIDE AND THE OUTLET SIDE MAY BE INSTALLED SEPARATELY OR COMBINED IN CONFORMANCE WITH THE UNIFORM PLUMBING CODE.
8. STRUCTURE SHALL BE MANUFACTURED BY JENSEN PRECAST OR APPROVED EQUAL.
9. PLUMBING THROUGH THE INTERCEPTOR SHALL MATCH LATERAL SIZE.
10. SEE JENSEN PRECAST, OR APPROVED EQUAL, FOR DIMENSIONS OR EQUIVALENT TANK WITH PRIOR APPROVAL OF THE ENGINEER. MAXIMUM TANK SIZE SHALL BE 3,000 GALLONS. MULTIPLE TANKS SHALL BE USED FOR INTERCEPTORS REQUIRING MORE THAN 3,000 GALLON VOLUME.

NOTE TO ENGINEER OR ARCHITECT
 PROVIDE 3" ELEVATION DROP BETWEEN INLET AND OUTLET PIPES THROUGH
 BOX. SHOW PIPE INVERT ELEVATIONS AT INLET AND OUTLET ON PLAN.



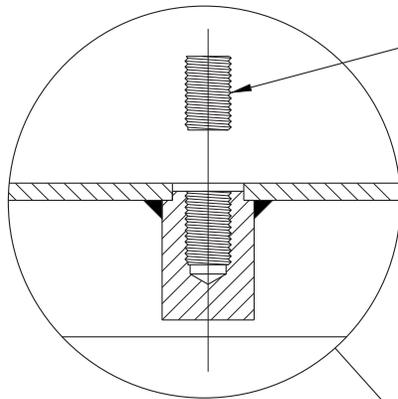
NOTES:

- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
- CIRCULAR LIDS SHALL BE SOUTH BAY FOUNDRY 1900-BD OR APPROVED EQUAL, WITH RAISED "S" OR "SANITARY SEWER".
- TANK TO BE PLACED ON TYPE "B" IMPORT.
- HEIGHT OF TANK ABOVE FITTINGS IS VARIABLE, 6 OR 12 INCH SECTIONS MAY BE ADDED TO REACH THE REQUIRED FINISHED GRADE. MORTAR AND BAND BOTH SIDES IN FIELD.
- ALL CONCRETE JOINTS SHALL BE CLEANED, WETTED AND MORTARED PRIOR TO SETTING NEXT SECTION. THE JOINTS SHALL BE PACKED, TROWELED AND BANDED SMOOTH ON BOTH SIDES OF THE BOX.
- BOLT EACH OF THE THREE (3) COMPARTMENT COVERS DOWN TO FRAME WITH NOT LESS THAN TWO (2) 7/16" HEX HEAD STEEL BOLTS.
- UNLESS OTHERWISE APPROVED BY THE CITY OF JURISDICTION, A VENT WILL BE REQUIRED ON THE INLET SIDE OF THE INTERCEPTOR WHEN ITS DISTANCE FROM THE VENT SYSTEM WITHIN THE BUILDING IS GREATER THAN 10 FEET. VENT PIPES ON THE INLET SIDE AND THE OUTLET SIDE MAY BE INSTALLED SEPARATELY OR COMBINED IN CONFORMANCE WITH THE UNIFORM PLUMBING CODE.
- STRUCTURE SHALL BE MANUFACTURED BY JENSEN PRECAST OR APPROVED EQUAL.
- PLUMBING THROUGH THE INTERCEPTOR SHALL MATCH LATERAL SIZE.
- SEE JENSEN PRECAST, OR APPROVED EQUAL, FOR DIMENSIONS OR EQUIVALENT TANK WITH PRIOR APPROVAL OF THE ENGINEER. MAXIMUM TANK SIZE SHALL BE 5,000 GALLONS. MULTIPLE TANKS SHALL BE USED FOR INTERCEPTORS REQUIRING MORE THAN 5,000 GALLON VOLUME.

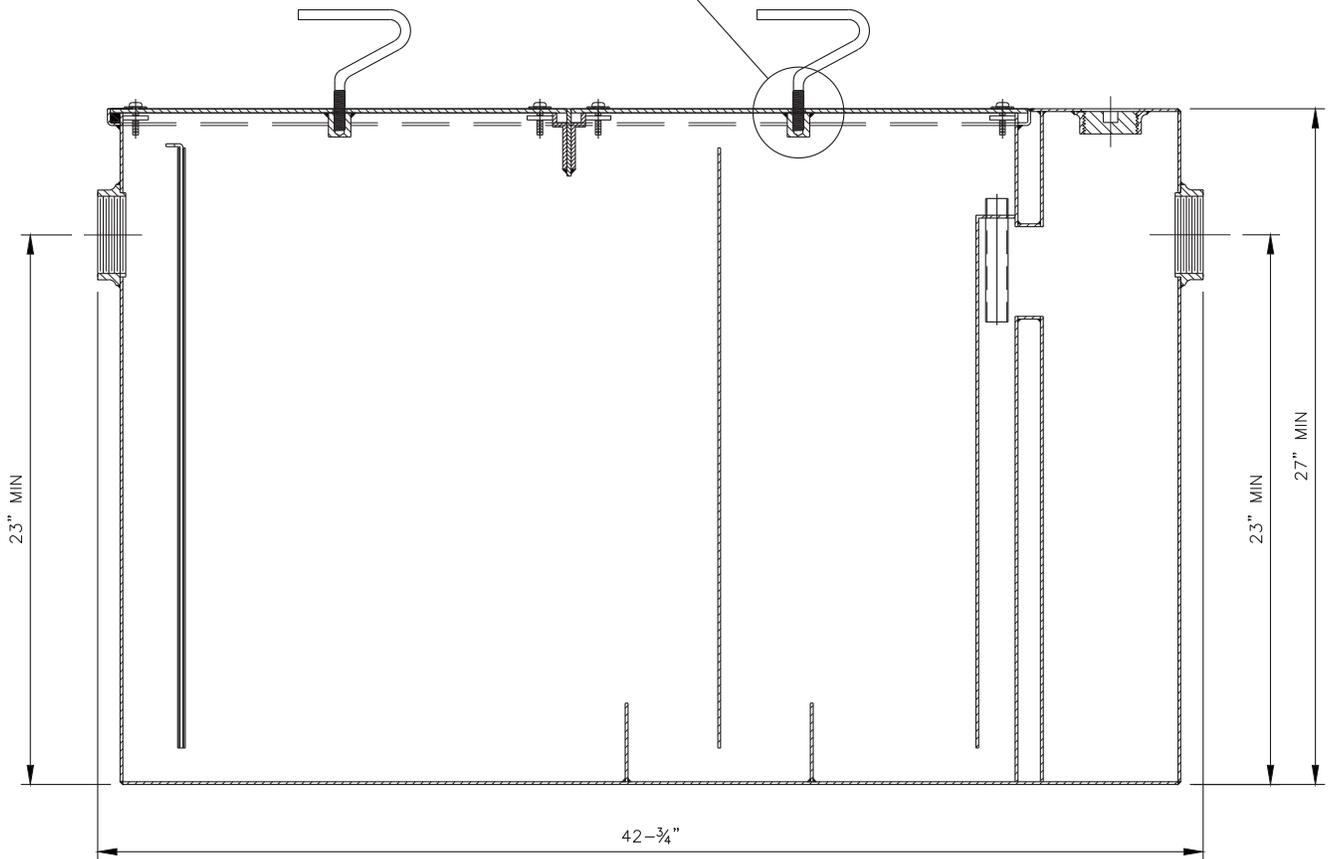
Date 3/15/17 Detail No. 21
 Approved by 258 of 258
 PAUL R. ELDREDGE, RCE 60211



GREASE INTERCEPTOR



HEX HEAD SET SCREW—REMOVE SCREWS TO USE LIFT HANDLES, REPLACE SCREWS ONCE COVER IS IN PLACE AND HANDLES ARE REMOVED.

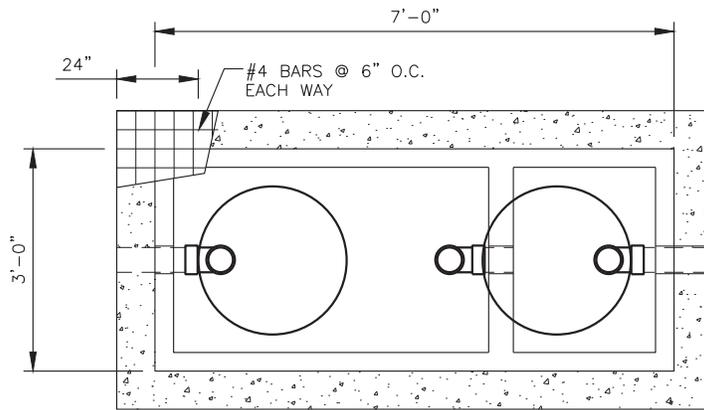


NOTES:

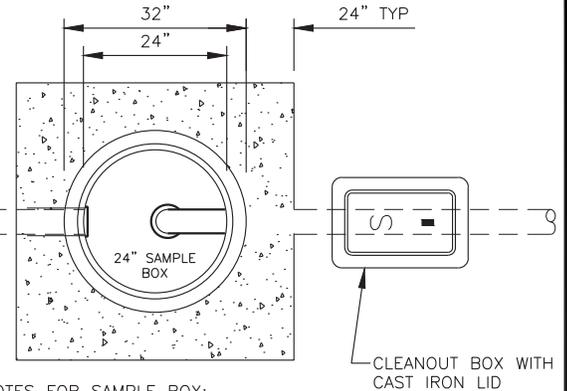
1. GREASE TRAP SHALL BE TWO COMPARTMENT WITH ACID RESISTANT COATED INTERIOR AND AN EXTERIOR FABRICATED STEEL DEVICE.
2. SHALL BE Z1172 MANUFACTURED BY ZURN OR AN APPROVED EQUAL.
3. SHALL BE SIZED FOR A MINIMUM GREASE CAPACITY OF 200 LBS.

NOTE TO ENGINEER OR ARCHITECT

PROVIDE 3" ELEVATION DROP BETWEEN INLET AND OUTLET PIPES THROUGH BOX. SHOW PIPE INVERT ELEVATIONS AT INLET AND OUTLET ON PLAN.

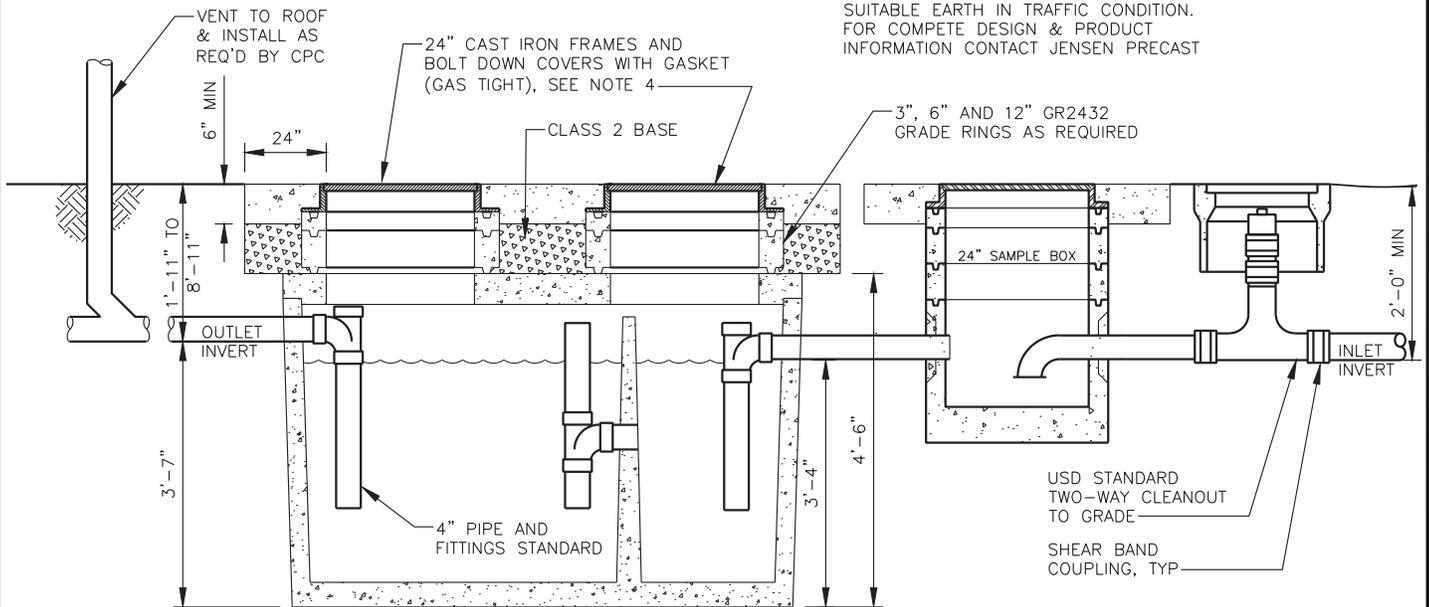


TOP VIEW
(COVERS & RINGS REMOVED)



NOTES FOR SAMPLE BOX:
BOX DESIGN LOAD: H-20 TRAFFIC
BOX I.D. SURFACE AREA: 3.142 SQ. FT.

SAMPLE BOX MUST BE PLACED ON SUITABLE EARTH IN TRAFFIC CONDITION. FOR COMPLETE DESIGN & PRODUCT INFORMATION CONTACT JENSEN PRECAST

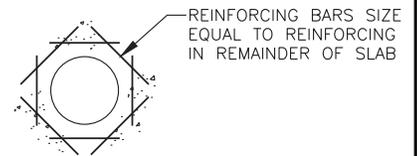


SIDE SECTION VIEW

BOX DESIGN LOAD: H-20 TRAFFIC FROM 1' TO 6' OF SOIL COVER

FOR COMPLETE DESIGN & PRODUCT INFORMATION CONTACT JENSEN PRECAST

MINIMUM SIZE OF 320 GALLONS

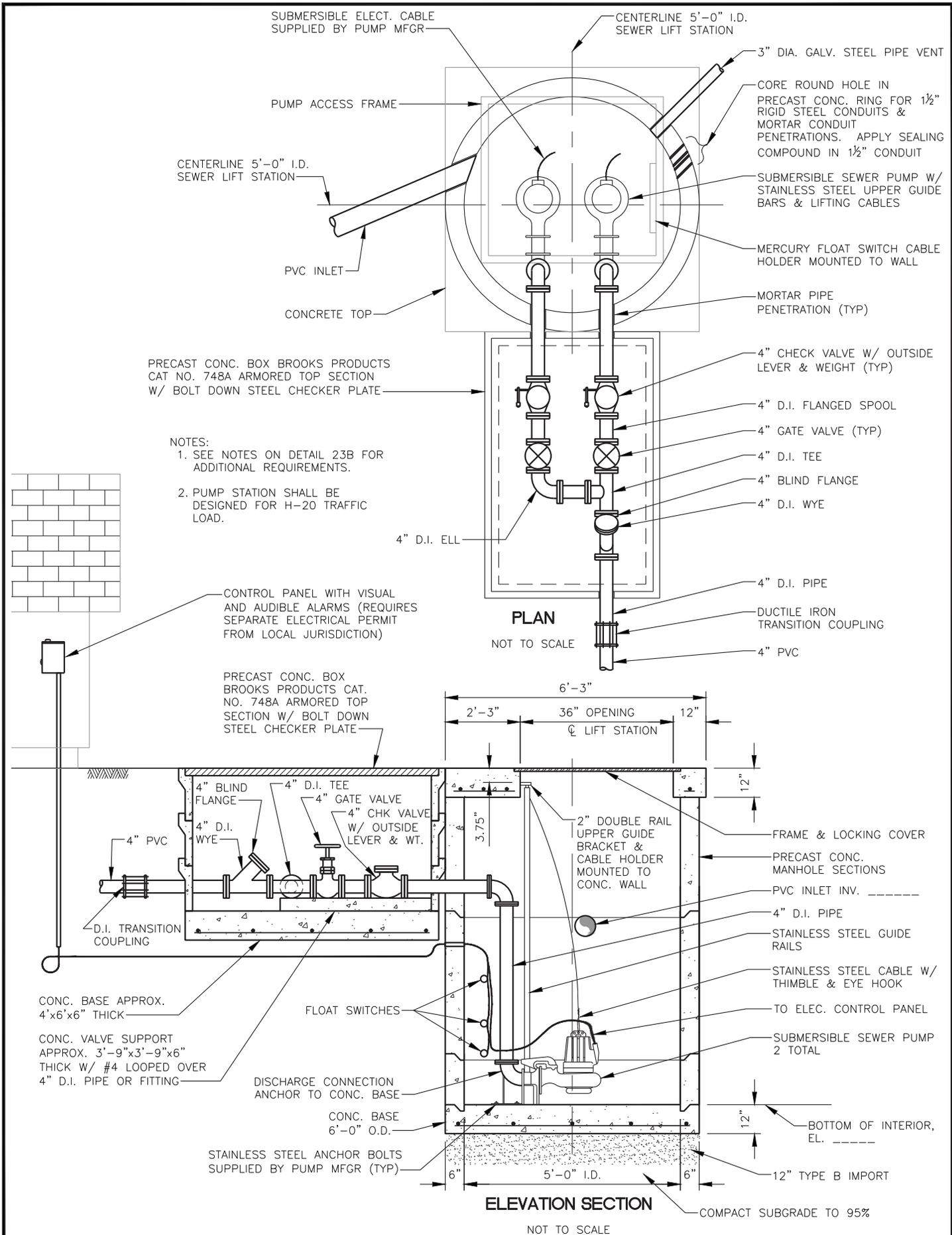


MANHOLE AREA REINFORCING DETAIL

NOT TO SCALE

NOTES:

1. DIMENSION AS SHOWN UNLESS OTHERWISE SPECIFIED BY USD.
2. JENSEN 320 PRECAST BOXES AS MANUFACTURED BY JENSEN PRECAST OR AN APPROVED EQUAL.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
4. CIRCULAR LIDS SHALL BE SOUTH BAY FOUNDRY 1900-BD OR APPROVED EQUAL, WITH RAISED "S" OR "SANITARY SEWER".
5. TANK TO BE PLACED ON TYPE "B" IMPORT.
6. HEIGHT OF TANK ABOVE FITTINGS IS VARIABLE, 6 OR 12 INCH SECTIONS MAY BE ADDED TO REACH THE REQUIRED FINISHED GRADE. MORTAR AND BAND BOTH SIDES IN FIELD.
7. ALL CONCRETE JOINTS SHALL BE CLEANED, WETTED AND MORTARED PRIOR TO SETTING NEXT SECTION. THE JOINTS SHALL BE PACKED, TROWELED AND BANDED SMOOTH ON BOTH SIDES OF THE BOX.



Date 3/15/17 Detail No. 24A

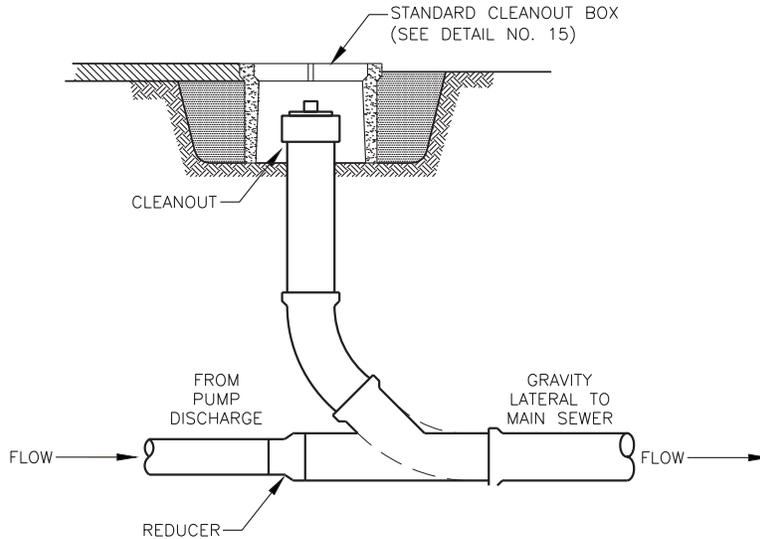
Approved 130 of 258 PAUL R. ELDREDGE, RCE 60211



UNION SANITARY DISTRICT

COMMERCIAL/MULTI-FAMILY
RESIDENTIAL PUMPING STATION

24A



ELEVATION SECTION

NOT TO SCALE

NOTES:

1. THE MINIMUM REQUIREMENTS FOR A COMMERCIAL/MULTI-FAMILY RESIDENTIAL PUMPING SYSTEM CONNECTING TO THE DISTRICT'S SYSTEM ARE SPECIFIED IN THE FOLLOWING PARAGRAPHS.
2. THE DISTRICT ACCEPTS NO RESPONSIBILITY FOR THE DESIGN, OPERATION OR MAINTENANCE OF SUCH PRIVATELY-OWNED AND OPERATED SYSTEMS.
3. ALL EQUIPMENT AND ACCESSORIES SHALL BE STANDARD MANUFACTURED ITEMS AND THOSE COMING IN DIRECT CONTACT WITH SEWAGE SHALL BE SPECIFICALLY MANUFACTURED FOR SEWAGE USE.
4. WHEN INSTALLED OUTSIDE OF A BUILDING, THE MOTOR, CONTROLS AND VALVES SHALL BE READILY ACCESSIBLE FOR MAINTENANCE YET PROTECTED AND SHELTERED BY A WEATHER-PROOF, WELL VENTILATED ENCLOSURE SECURED AGAINST TAMPERING.

PUMPS:

THE PUMPS SHALL BE A CENTRIFUGAL, SUBMERSIBLE, NON-CLOG TYPE. THE IMPELLER SHALL BE CAPABLE OF PASSING A TWO (2) INCH SPHERE. THE MINIMUM PUMP DISCHARGE SHALL BE THREE (3) INCHES IN DIAMETER. THE PUMP CAPACITY AGAINST THE REQUIRED HEAD SHALL BE APPROVED BY THE DISTRICT.

SUBMERSIBLE PUMPS MUST BE U.L. RATED AS EXPLOSION PROOF. PUMP REQUIREMENTS INSOFAR AS SOLIDS HANDLING CAPACITY AND PUMP RATE AND HEAD, MUST CONFORM TO BASIC STANDARDS REQUIRED FOR STANDARD WET PIT INSTALLATIONS.

PUBLIC USAGE INSTALLATIONS (AS DEFINED IN THE UNIFORM PLUMBING CODE) WILL REQUIRE DUAL PUMPS MEETING ABOVE DESIGN STANDARDS AND ARRANGED TO FUNCTION INDEPENDENTLY IN CASE OF OVERLOAD OR MECHANICAL FAILURE.

PUMP SUMP:

THE PUMP SUMP TANK SHALL BE SIXTY (60) INCHES IN DIAMETER AND THE DEPTH SHALL BE AS REQUIRED TO EXTEND SIX (6) INCHES ABOVE GROUND AND THREE (3) FEET BELOW THE INLET PIPE (UNLESS OTHERWISE APPROVED BY THE DISTRICT). THE PUMP SUMP SHALL BE REINFORCED CONCRETE.

ELECTRIC POWER SERVICE:

THE POWER REQUIREMENTS SHALL BE AS RECOMMENDED BY THE PACIFIC GAS AND ELECTRIC COMPANY. THE NAME PLATE HORSEPOWER SHALL BE GREATER THAN THE BRAKE HORSEPOWER NECESSARY TO OPERATE THE PUMP AT THE TOTAL REQUIRED HEAD AND SHALL NOT OVERLOAD IF OPERATING HEAD SHOULD DROP 30%.

ELECTRICAL WORK AND CONTROL:

ALL ELECTRICAL WORK AND CONTROLS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY HAVING JURISDICTION. THE ELECTRICAL CONTROLS SHALL PROVIDE ADEQUATE PROTECTION FOR THE MOTOR AND EQUIPMENT.

FLOAT SWITCH ASSEMBLY:

THE LEVEL CONTROL SWITCH SHALL HAVE GAS TIGHT MOUNTINGS WITH A NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION ONE (1) SWITCH ENCLOSURE.

VENT FOR PUMP SUMP:

WHERE SYSTEM IS LOCATED WITHIN THE DWELLING, A VENT SHALL BE PROVIDED AS REQUIRED BY LOCAL CODES. WHERE SYSTEM IS LOCATED OUTSIDE THE DWELLING, A THREE (3) INCH OR LARGER VENT SHALL BE EXTENDED TO A POINT TEN (10) FEET ABOVE THE PUMP SUMP COVER AND HAVE A RETURN BEND AT TOP.

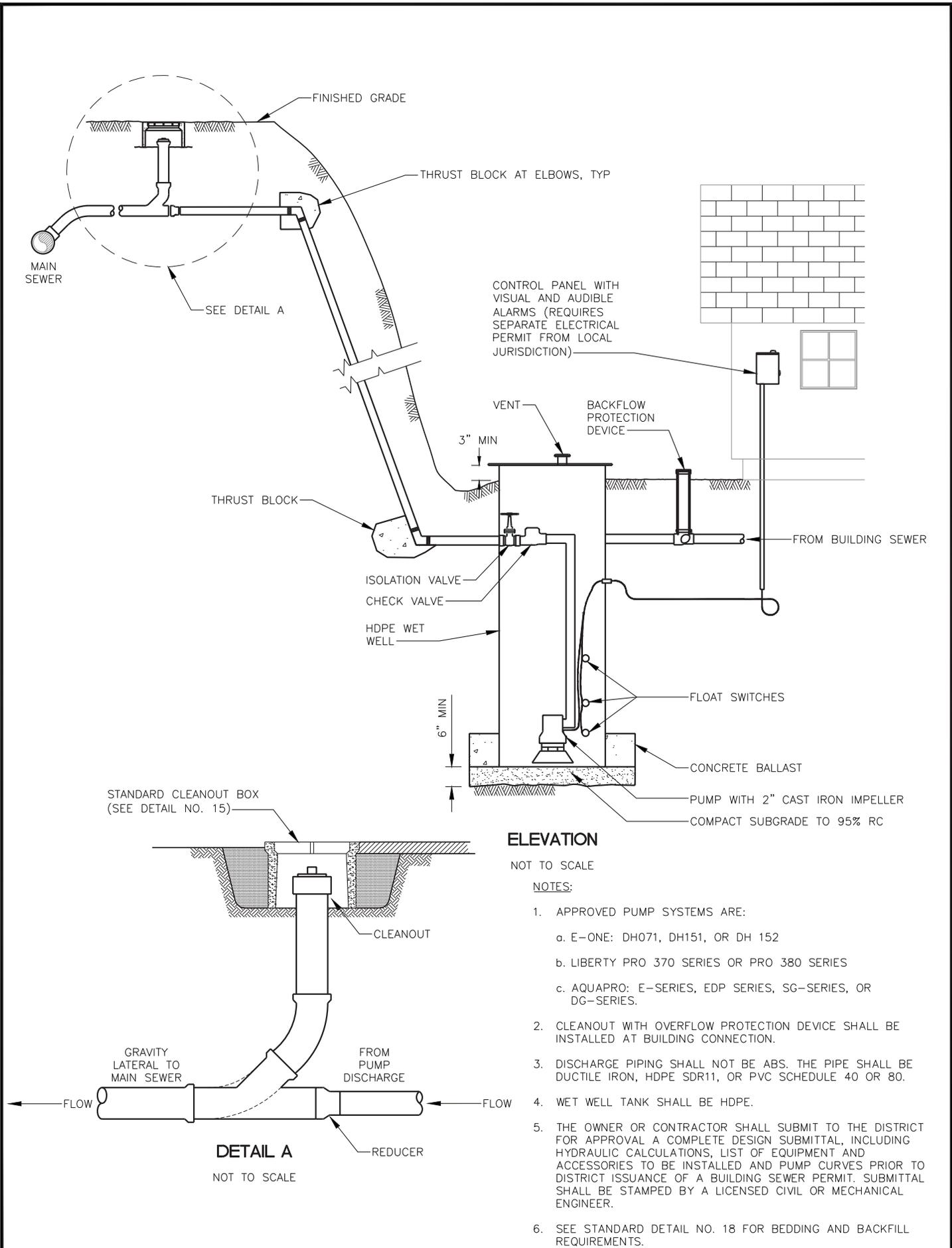
DISCHARGE LINE:

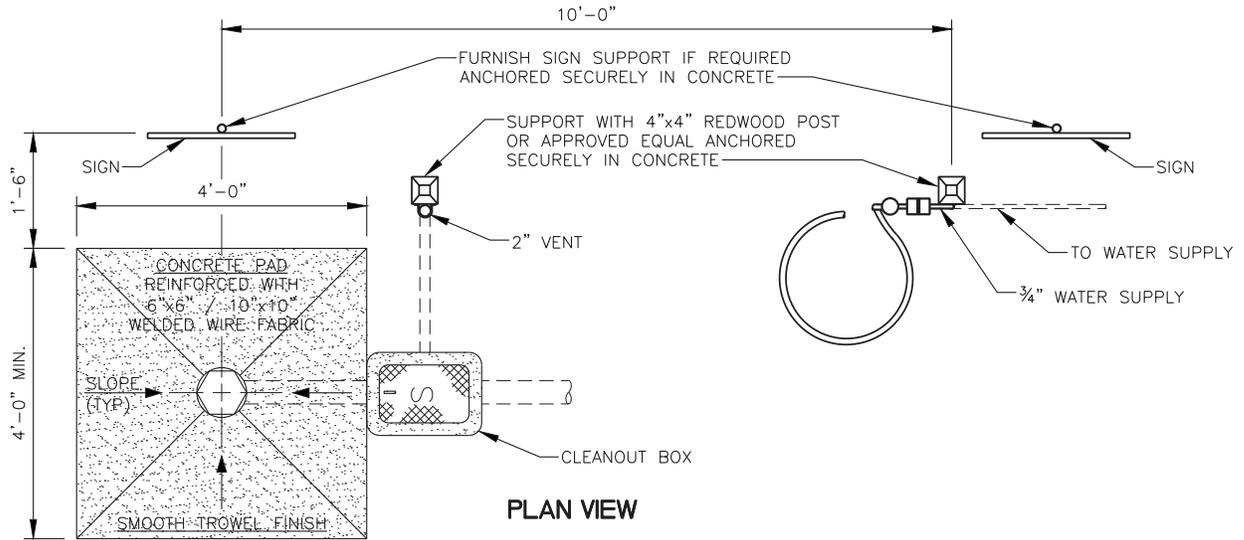
THE PRESSURE PORTION OF THE DISCHARGE LINE, INCLUDING THE CHECK VALVE, GATE VALVE AND FLEXIBLE COUPLINGS SHALL BE EQUAL IN SIZE TO THE PUMP DISCHARGE. THE PIPE SHALL BE DUCTILE IRON OR APPROVED EQUAL SUITABLE FOR DESIGN PRESSURES. THE CHECK VALVE SHALL BE A STOCKHAM G-927 OR APPROVED EQUAL. THE GATE VALVE SHALL BE A STOCKHAM G-608 OR APPROVED EQUAL. THE FLEXIBLE COUPLING SHALL BE A STYLE 38 DRESSER COUPLING OR APPROVED EQUAL.

THE GRAVITY PORTION OF THE DISCHARGE LINE SHALL BE FOUR (4) INCH MINIMUM DIAMETER PIPE AND SHALL MEET THE DISTRICT REQUIREMENTS FOR BUILDING SEWERS.

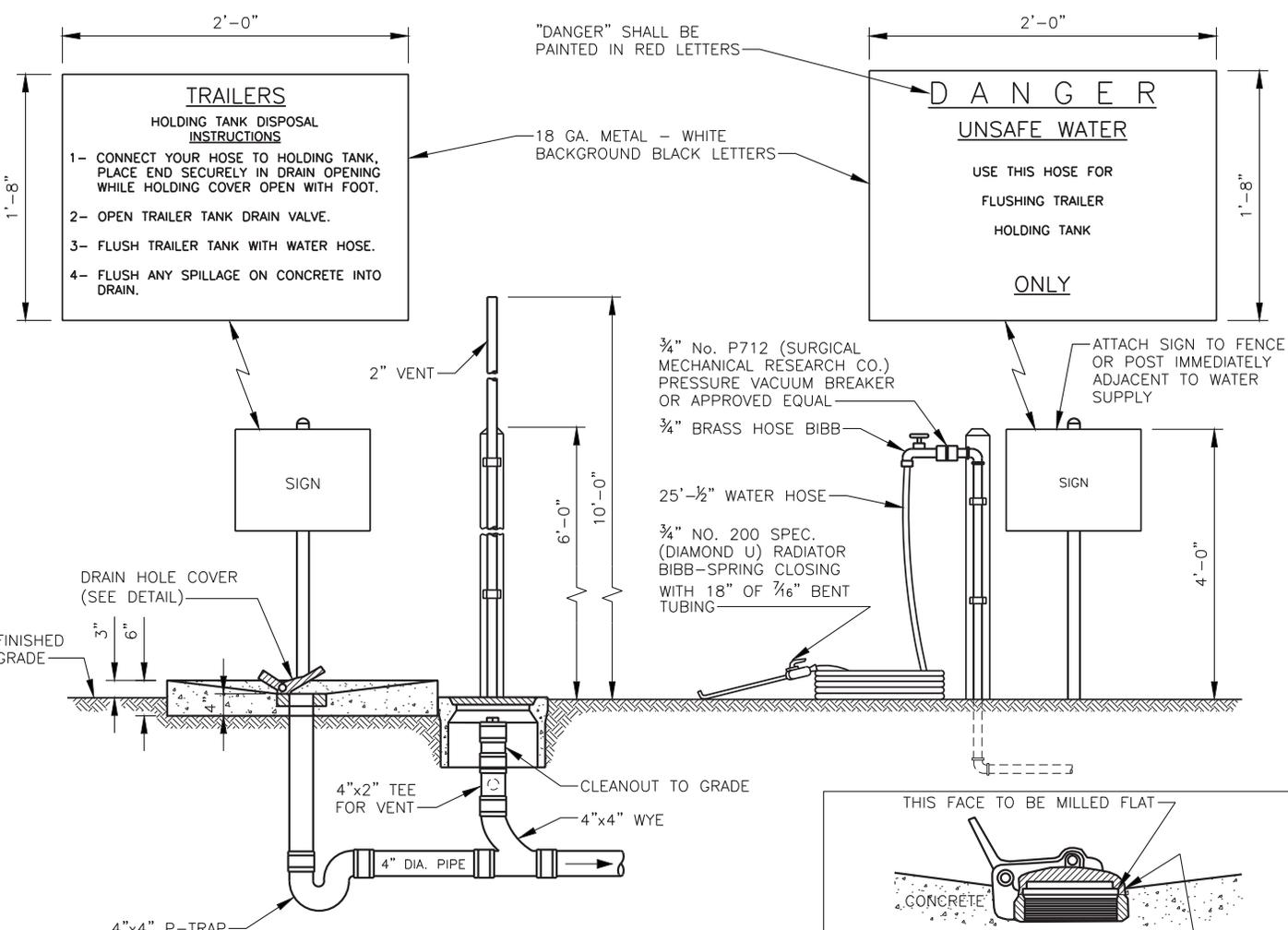
SUBMITTAL REQUIRED FOR DISTRICT APPROVAL:

THE OWNER OR CONTRACTOR SHALL SUBMIT TO THE DISTRICT FOR APPROVAL A COMPLETE DESIGN SUBMITTAL, INCLUDING HYDRAULIC CALCULATIONS, LIST OF EQUIPMENT AND ACCESSORIES TO BE INSTALLED AND PUMP CURVES PRIOR TO DISTRICT ISSUANCE OF A BUILDING SEWER PERMIT. SUBMITTAL SHALL BE STAMPED BY A LICENSED CIVIL OR MECHANICAL ENGINEER.

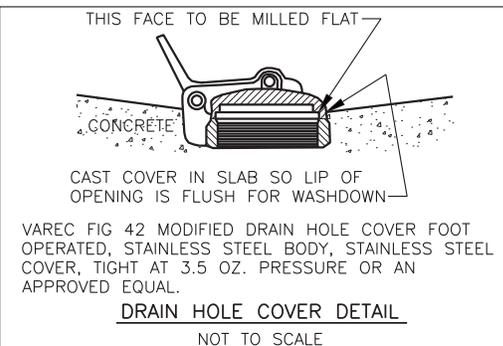


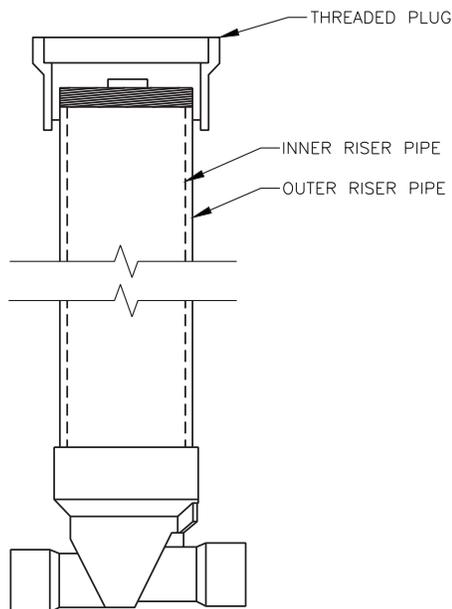
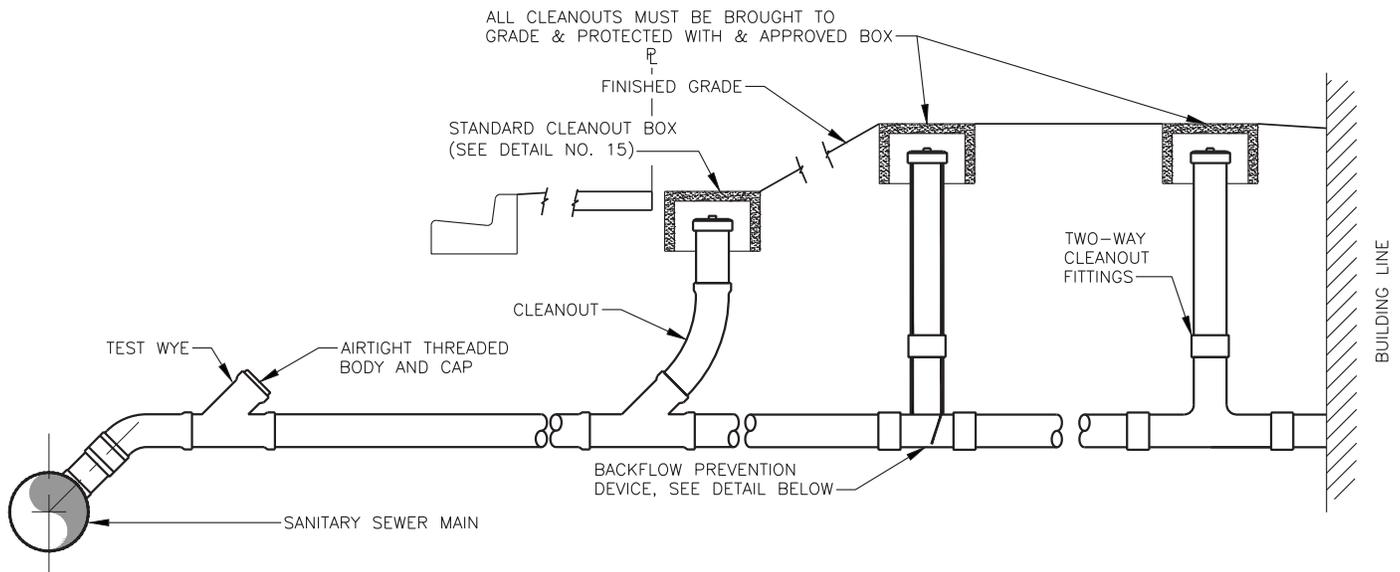


PLAN VIEW
NOT TO SCALE



ELEVATION
NOT TO SCALE



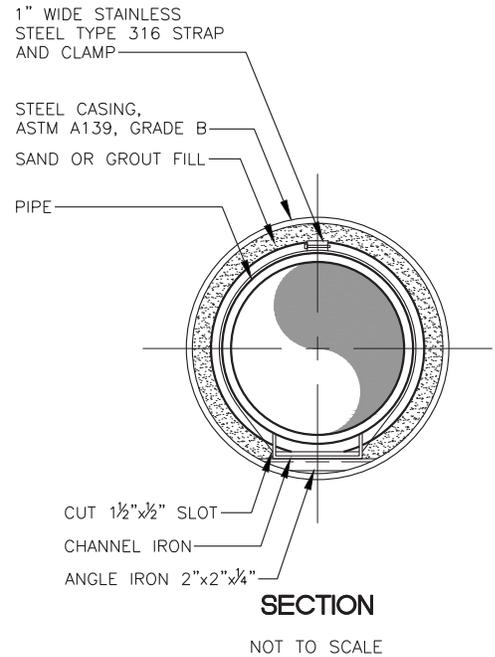
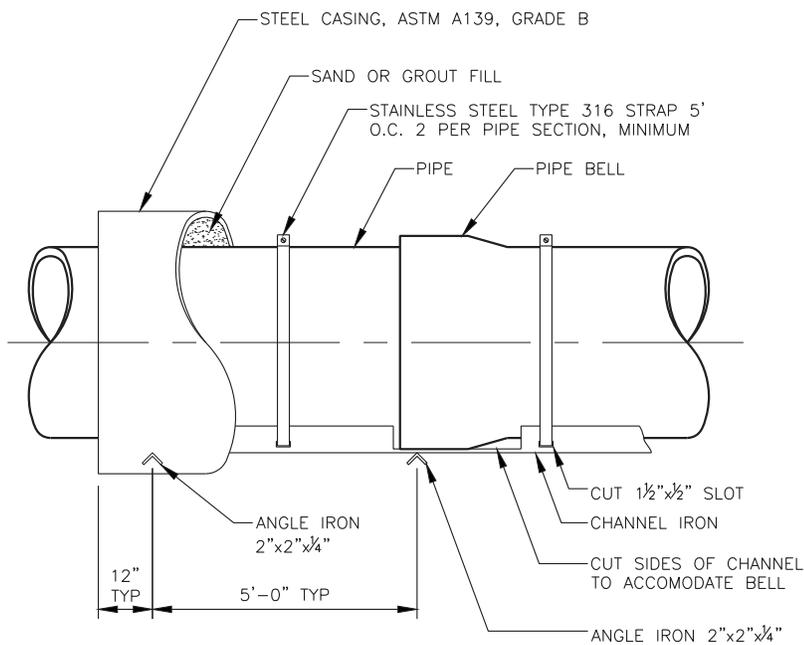


NOTE:
 INSTALL THE DEVICE SUCH THAT THE FLAPPER IS LOWER
 THAN THE ELEVATION OF THE LOWEST PLUMBING FIXTURE
 ATTACHED TO THE BUILDING DRAINS.

EXTENDABLE BACKFLOW PREVENTION DEVICE

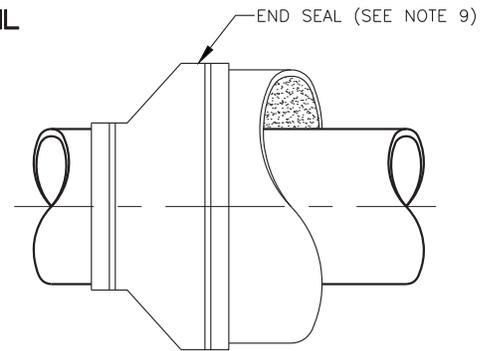
- NOTES:
1. INSTALL WHEN REQUIRED BY THE ENGINEER.
 2. APPROVED CONCRETE BOXES ARE:
 - a) CHRISTY CONCRETE PRODUCTS:
 V9 RECTANGULAR DRAIN BOX WITH V9-71C GRATE LID
 - b) CHRISTY CONCRETE PRODUCTS:
 V1 CIRCULAR DRAIN BOX WITH A V1-71C GRATE LID
 3. APPROVED MANUFACTURERS:
 - a) CLEAN-CHECK® BACKWATER VALVE BY RECTOR SEAL OR
 APPROVED EQUAL.
 4. DO NOT INSTALL STANDARD CLEANOUT IF THE LENGTH
 BETWEEN THE STANDARD CLEANOUT AND THE 2-WAY
 CLEANOUT IS 50" OR LESS.





TYPICAL CASING PIPE DETAIL

NOT TO SCALE



END SEAL

NOT TO SCALE

NOTES:

- CASING SHALL BE STEEL, ASTM A139, GRADE B (MINIMUM YIELD STRENGTH OF 35,000 PSI). CASING INSIDE DIAMETER SHALL BE 30" OR 12" LARGER THAN OUTSIDE DIAMETER OF CARRIER PIPE BELL, WHICHEVER IS GREATER. MINIMUM CASING THICKNESS SHALL BE AS FOLLOWS:

MINIMUM CASING THICKNESS	CASING DIAMETER
½"	30"
¾"	UP TO 48"

FOR CASING DIAMETERS LARGER THAN 48" OR IF REQUIRED BY THE ENGINEER, CONTRACTOR SHALL SUBMIT CASING THICKNESS CALCULATIONS SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.

- EACH CASING JOINT SHALL BE WELDED ALL AROUND.
- CASING SHALL BE INSTALLED BY JACKING AND BORING, UNLESS OTHERWISE APPROVED BY DISTRICT ENGINEER.
- ANNULAR SPACE BETWEEN INSIDE OF CASING AND OUTSIDE OF CARRIER PIPE SHALL BE COMPLETELY FILLED WITH CLEAN DRY SAND OR GROUT PER SPECS.
- CARRIER PIPE AND CHANNEL WILL BE SUPPORTED BY ANGLE IRON WELDED TO THE INNER WALL OF CASING. CARRIER PIPE SHALL BE LAID SUCH THAT AN EVEN GRADE IS PROVIDED.
- CHANNEL SECTIONS SHALL BE WELDED TO FORM CONTINUOUS CHANNEL. MAX ALLOWABLE UNSUPPORTED LENGTH OF CHANNEL IN CASING IS 5'-0". CHANNEL SHALL BE WELDED TO ANGLE IRON AT ENDS OF CASING ONLY.
- CHANNEL SIDES SHALL BE CUT TO PROVIDE MIN. ⅛" CLEARANCE BETWEEN CHANNEL AND BELL END OF PIPE. PIPE SHALL NOT BE SUPPORTED BY BELL END OF PIPE.
- PROVIDE ANGLE IRON MAX. 1'-0" FROM ENDS OF CASING.
- END SEAL SHALL BE ⅛" THICK NEOPRENE RUBBER WITH TYPE 316 STAINLESS STEEL STRAPS.

Date 3/15/17 Detail No. 28

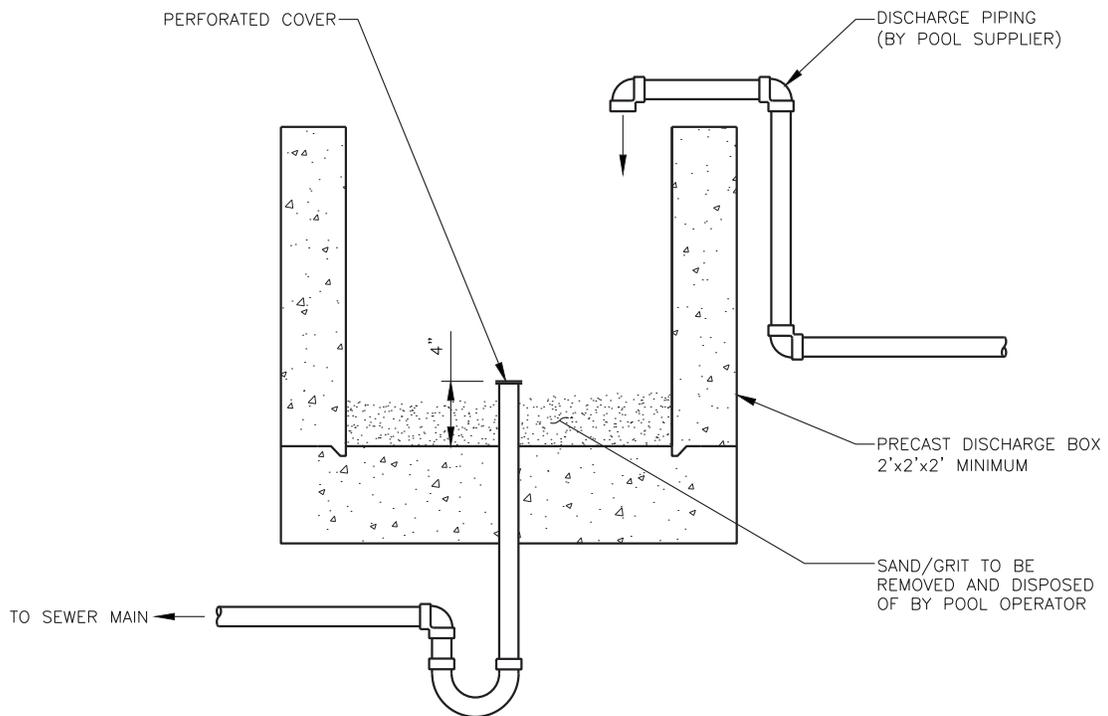
Approved 135 of 258
PAUL R. ELDREDGE, RCE 60211



UNION SANITARY DISTRICT

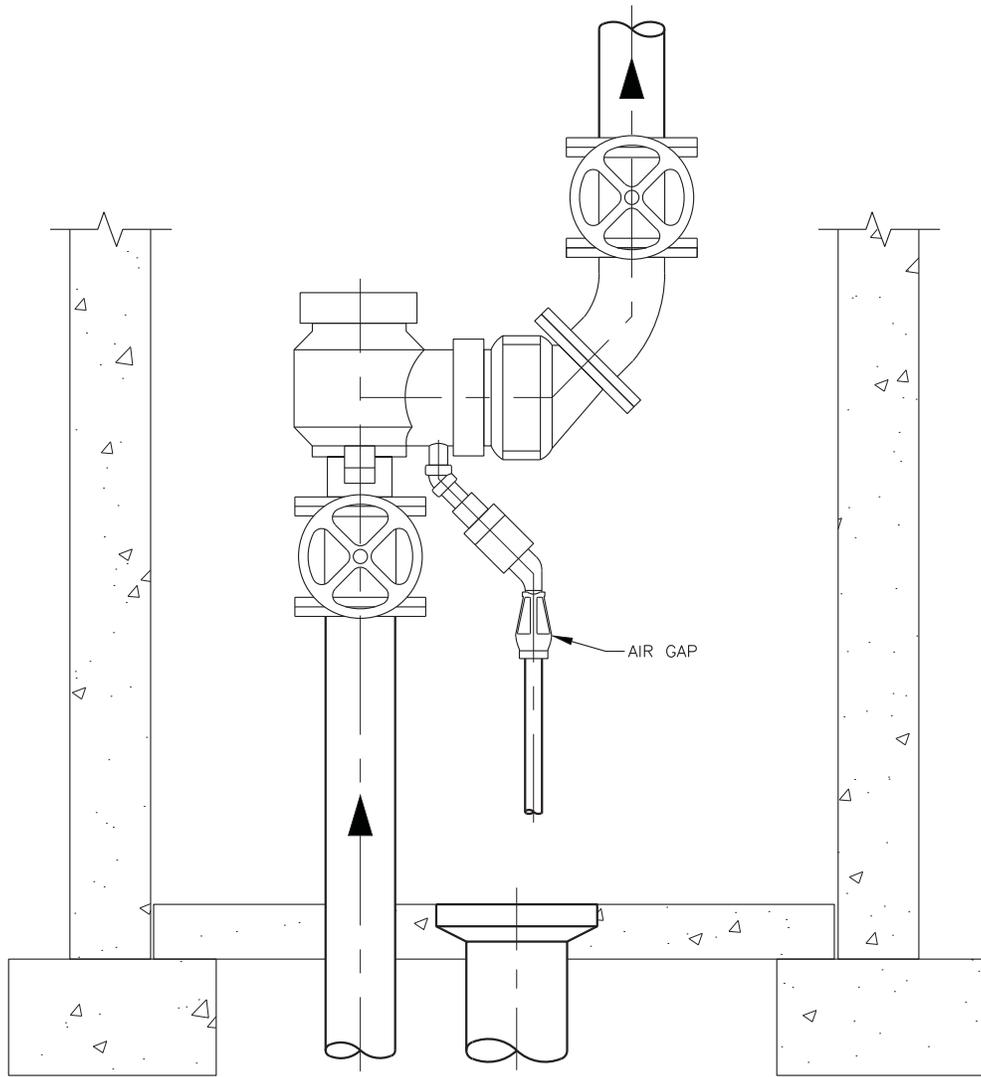
PIPE CASING

28



ELEVATION SECTION

NOT TO SCALE

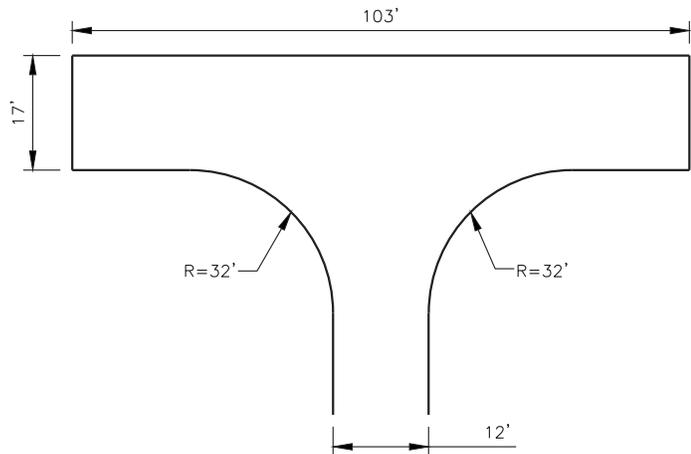


INDOOR INSTALLATION

NOT TO SCALE

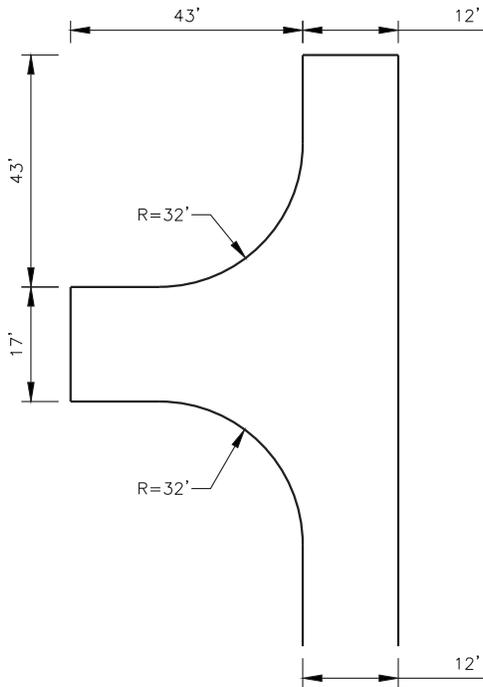
NOTES:

1. AIR GAP SHALL BE MODEL AG MANUFACTURED BY WILKINS OR AN APPROVED EQUAL.



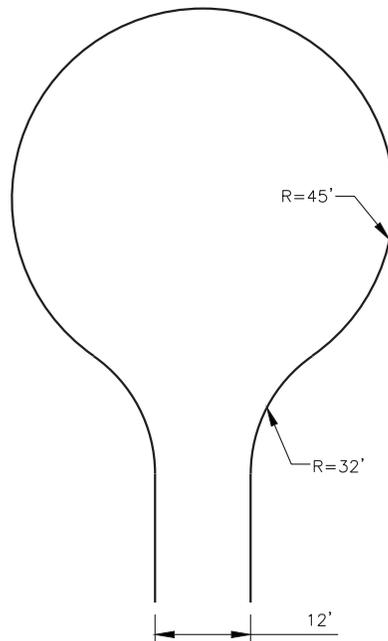
T-TURN

NOT TO SCALE



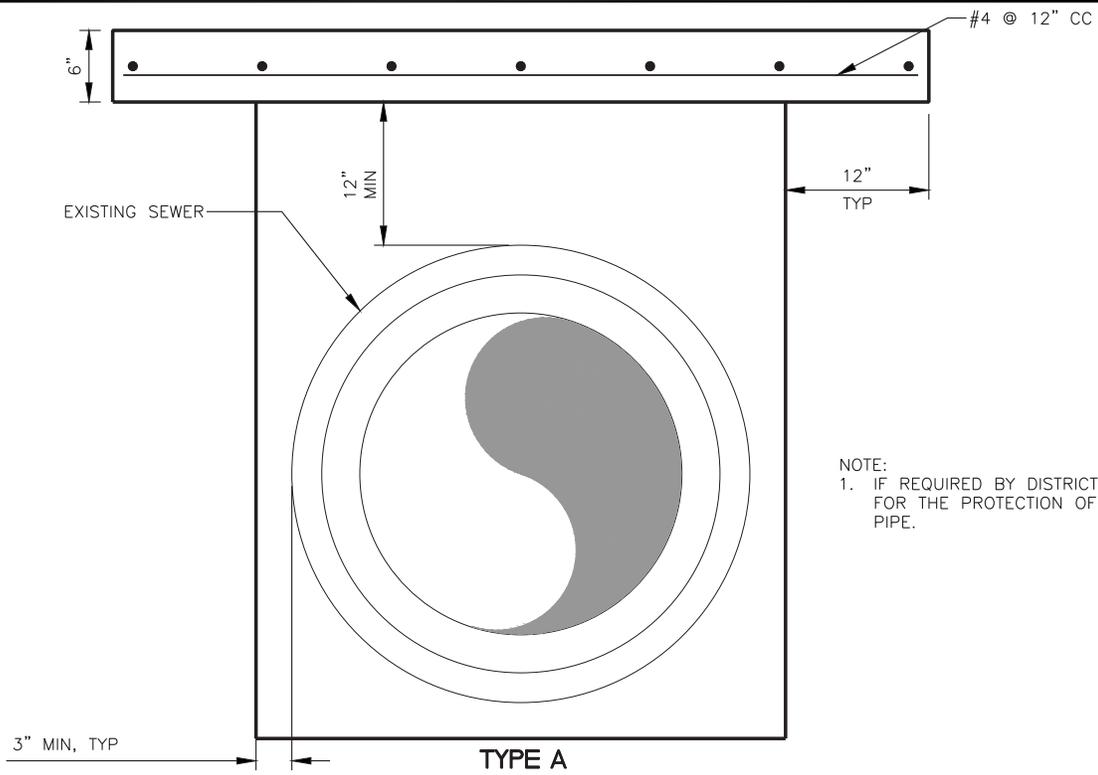
HAMMER-HEAD

NOT TO SCALE

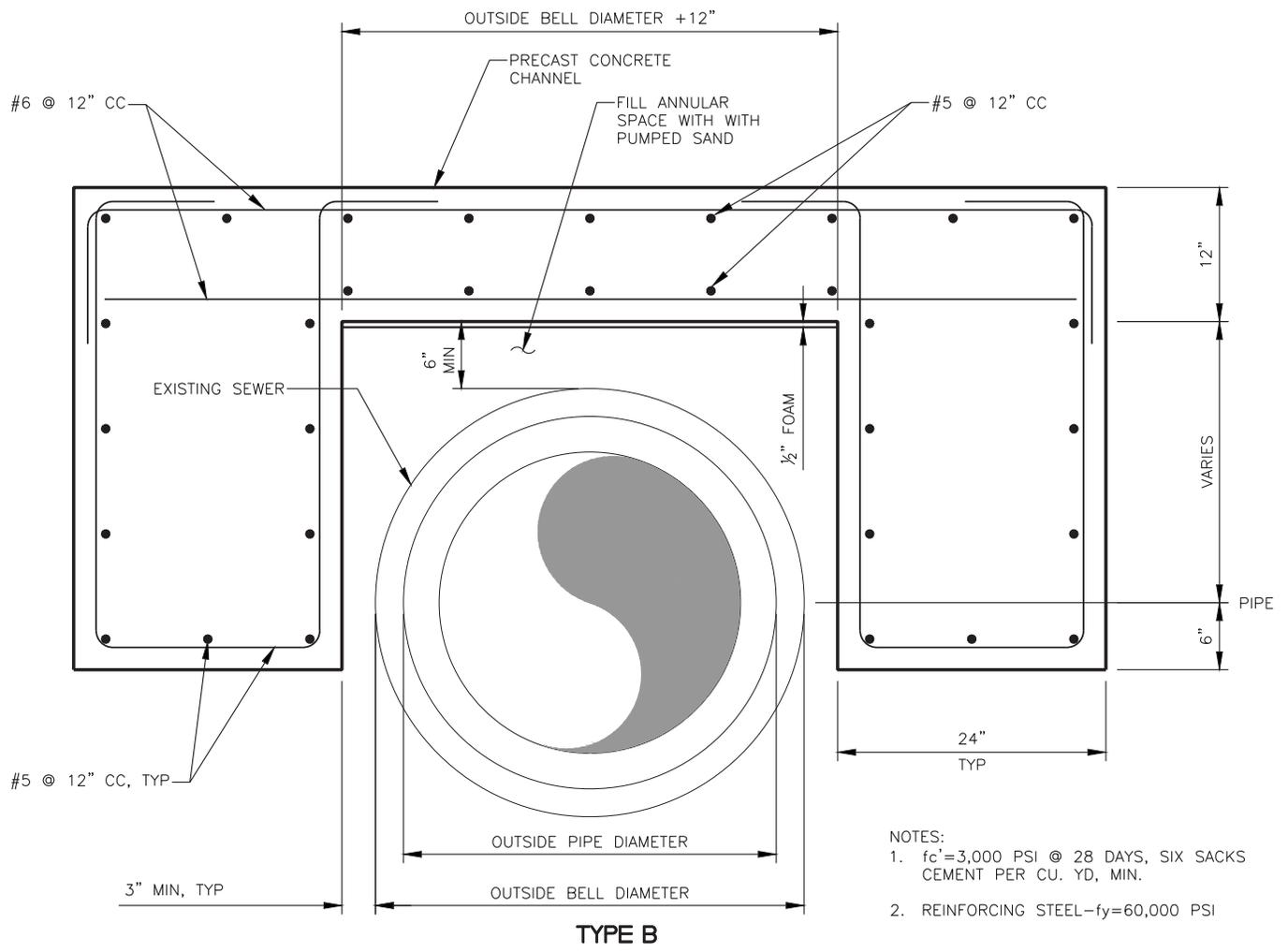


CIRCLE

NOT TO SCALE



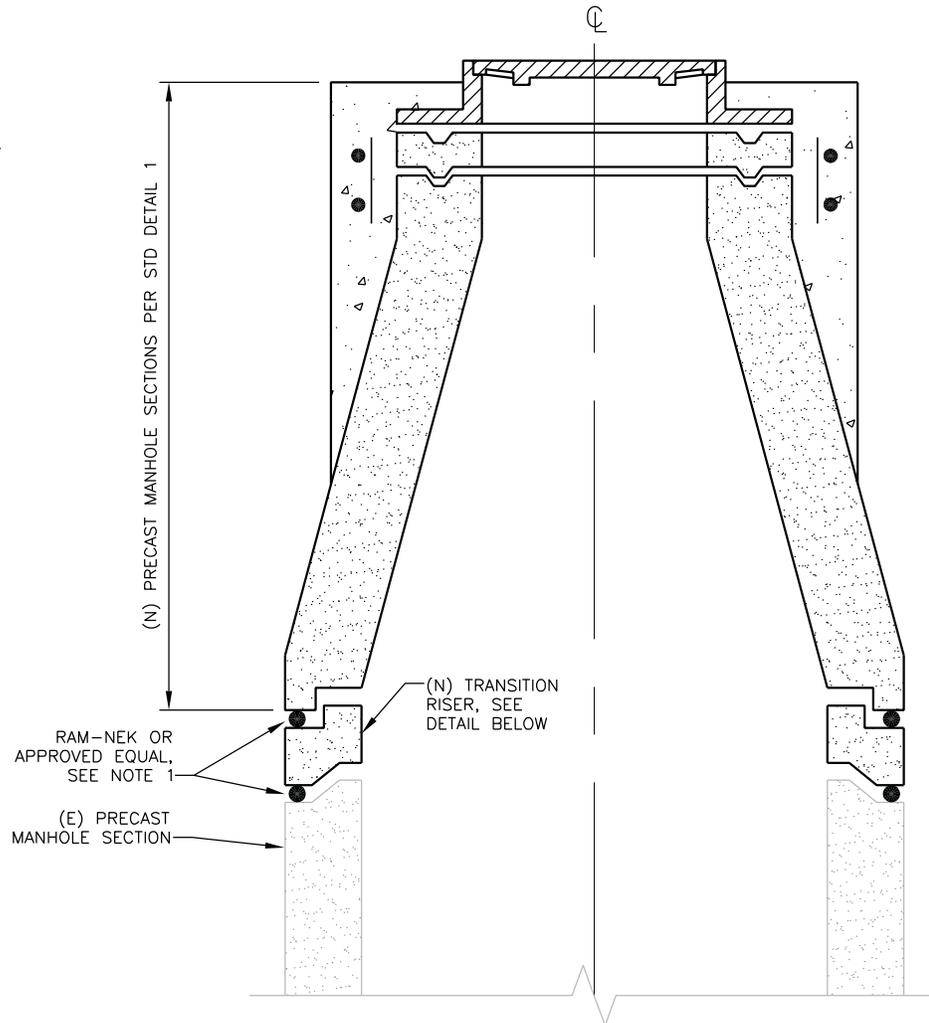
NOTE:
1. IF REQUIRED BY DISTRICT ENGINEER FOR THE PROTECTION OF EXISTING PIPE.



NOTES:
1. $f_c' = 3,000$ PSI @ 28 DAYS, SIX SACKS CEMENT PER CU. YD, MIN.
2. REINFORCING STEEL $-f_y = 60,000$ PSI

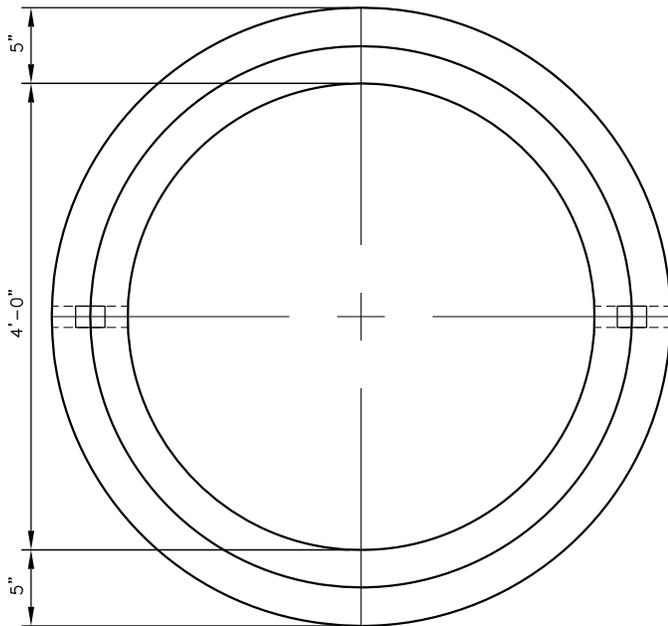


FOR USE IN THE ADJUSTMENT OF EXISTING MANHOLES WITH THE "TEICHERT" OR SIMILAR JOINTS.



ELEVATION SECTION

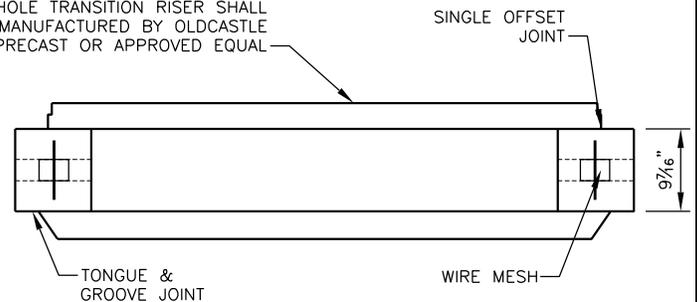
NOT TO SCALE



PLAN VIEW

NOT TO SCALE

MANHOLE TRANSITION RISER SHALL BE MANUFACTURED BY OLDCASTLE PRECAST OR APPROVED EQUAL



TRANSITION RISER SECTION

NOT TO SCALE

NOTES:

1. INSTALL "RAM-NEK" OR APPROVED EQUAL BETWEEN EACH JOINT OF THE CONE AND BARREL SECTIONS TO MAKE A FLEXIBLE WATER-TIGHT JOINT. AFTER JOINT IS MADE, TRIM JOINT SMOOTH ON THE INSIDE OF MANHOLE.
2. FOR TRUNK MANHOLES, INSIDE DIAMETER IS 5'-0".

INDEX

----- A -----

Abandonments	11.10
Building Sewer	11.10(b)
Main Sewer.....	11.10(a)
Manhole.....	11.10(c)
Septic Tank.....	11.10(d)
Abbreviations	2.02
Pipe Types.....	2.03
Acceptance	
of construction	20
of building sewer	20.02
of main sewers	20.01
Access	
to fire hydrants, water gates, meters and private driveways	8.02(h)
to job site	11.01(c)
Adjustments	
to existing main sewers or appurtenances	11.09, 18.02
Air Testing	
Building sewers	12.02
Main sewers	12.01
Alignment	
Allowable deviation.....	7.01(b)
Of building sewers.....	23.03
Of main sewers	22.04
Alterations	
Engineer's right	11.02
Approval, of construction	
Building sewers	20.02
Main sewers	20.01

----- B -----

Blasting	8.02(f)
Bracing	
For trenches	8.02(e)
Building Sewer	
Abandonment of,	11.10(b)
Alignment of,	23.03
Approval and acceptance of,	20.02
Cleanout to grade.....	7.05, 23.19(b)(c)
Clearance between utilities	23.12

Connection to existing building sewer.....	23.10
Connection to building drain (kick out).....	23.11
Connection to existing main sewer	23.08
Crossing utilities	22.14
Curb marking.....	11.06, 23.07
Easement requirements	16.06(d)
Grade.....	23.05
Grade stakes	23.06
Location parallel to building footing.....	23.13
Minimum pipe cover	23.16
Number required	18.06
Plans.....	17.09
Pipe materials.....	23.02
Private manhole	23.19(a)
Repair of,	11.08(c), 18.03
Relocation of,	18.03
Structure type	23.19
Test wye	7.07, 23.19(d)
Testing of,	12.02
Two way cleanout to grade	7.06, 23.19(c)
Use of existing,.....	11.05

----- C -----

Casing	
Sewer through,	7.08
Cleaning	
Discharge of cleaning water	14.02
Sewer pipe.....	14.01
Cleanup	
Site	15.01
Cleanout	
To grade	23.19(b)
Two way to grade	23.19(c)
Clearance	
Crossing other utilities (private sewer).....	23.12
Horizontal between other utilities (main sewer)	22.11
Horizontal between other utilities (private sewer)	23.18
Commencement	
New sewer pipe line	7.01(h)
Compaction	
Trench	9.05(c)
Connection	
To building drain (plumbing kick-out)	23.11
To existing building sewer	18.03, 23.10
To existing main sewer or appurtenances	18.02, 22.18, 23.08

Construction Permit Requirements	
Annexation policy	16.01, 16.05(a)
Bond	16.04
Developer deposit	16.04(d)
Contractor's license	16.03
Fees and charges	16.05
Plans for main sewers	16.06
Plans for building sewers	16.07

Couplings	
Pipe	5.03

Cover	
Minimum pipe	22.09

Cross-connection	
Main sewers	22.05

Curb Marking	23.07
--------------------	-------

Cut sheets.....	19.02
-----------------	-------

----- D -----

Damage to District Facilities	
Repair costs.....	18.03

Defective	
Work or materials	11.03

Definitions and Terms.....	2.01
----------------------------	------

Deflectometer	
Test.....	12.01(h)

Design Depth	
Main sewers	22.08

Details	
Construction (required)	21.02

Dewatering	
Sewer subgrade	8.02(g)

----- E -----

Easement Requirements	
Building sewers	16.07(f)
Main sewers	16.06(d)
Paving requirements	22.25
Width requirements	22.24

Embedment	
Requirement for,	5.05

Specifications for,	9.04
Existing sewer	
Verification of location and elevation	7.01(g)
Excavation	
Definition.....	8.01
----- F -----	
Fees	
Payment before approval	18.03
----- G -----	
Grade	
Allowable deviation of,	7.01(b)
Building sewers	23.05
Main sewers	22.06
Grade Stakes	
Building sewers	23.06
Main sewers	22.07
Grade Line	
Laser.....	7.01(c)
String line.....	7.01(d)
Grout.....	6.02
Guarantee of Work	3.02
----- I -----	
Import Material	
Type "A"	9.04(a)(1)
Type "B"	9.04(a)(2)
Inspection	
Access to work site.....	11.01(c)
Conformance to specifications	11.01(a)
Notification of construction work	19.03
Television	13
----- J -----	
Joint Deflection	
Limitation	7.01(f)

----- L -----

Lasers7.01(c),7.01(d)

----- M -----

Mandrel
Test..... 12.01(h)

Manhole

Abandonment 11.10(c)
Base block, poured concrete..... 7.03(a)
Base block, precast concrete 7.03(b)
Bolt-down cover.....22.23
Castings..... 7.03(d)
Collar 7.03(f)
Connection of building sewer22.18
Connection of sewer stubs22.20
Deflection, maximum of sewer pipes22.17
Drop..... 7.03(c), 22.22
Elevations of sewer pipes22.16
Liners..... 7.03(g)
Locations of,22.15
Marking.....11.07
Rim elevation.....22.19
Private 23.19(a)
Protection11.04
Sewer pipes through 7.01(i)
Shaft, precast concrete 7.03(b)
Steps 7.03(e)

Materials of Construction

Concrete6.01
Cleanout to Grade7.05
Embedment9.04
Existing building sewers.....11.05
Manhole.....7.03
Mortar6.02
Pipe 5.02, 22.01, 23.02
Riser7.04
Rock ballast.....9.02
Steel casing.....7.08

Mortar6.02

----- O -----

Overflow Devices

Building sewers23.20

----- P -----

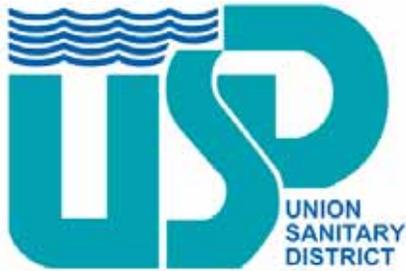
Paving Replacement

Definition.....10.01

Easements.....	10.02, 10.03
Private property	10.03
Public rights-of-way	10.02
Utility easements	10.02
Permits	
City building	16.12
Sewer construction.....	19.01
Waste discharge.....	16.05(j)
Pipe	
Acrylonitrile-butadiene-styrene (ABS).....	5.02(b)(1)
Ductile iron (DIP)	5.02(a)(2)
Embedment	9.04
Field cutting	7.01(m)
Flexible	5.02(b)
Foundation	
Rock ballast.....	9.02
Ground to be filled for cover	7.01(k)
Handling of	7.01(l)
Material (building sewer)	23.02
Material (main sewer).....	22.01
Material change (main sewer).....	22.02
Minimum cover (building sewer)	23.16
Minimum cover (main sewer)	22.09
Poly vinyl chloride (PVC).....	5.02(b)(2)
Splice.....	7.02
Vitrified Clay (VCP)	5.02(a)(1)
Plans	
Building sewer	16.09
Main sewer	16.08
Plugs	
Sewer pipe.....	7.01(e)
Preparation	
Site	4.01
----- Q -----	
Quitclaim	
Requirements	16.06(e)
----- R -----	
Relocation	
Existing building sewer.....	11.08(c), 18.03
Existing main sewer	11.08(b), 18.01
New building sewer	11.08(a)
Other agency facilities	11.08(d)
Restoration	
Site	15.01

Riser	
Casting	7.04(b)
Shaft	7.04(a)
Rock Ballast	
Pipe foundation	9.02
----- S -----	
Saddle	
Pipe	5.04
Septic Tanks	
Abandonment	11.10(d)
Sewer Line	
Commencement of new	7.01(h)
Shoring	8.02(e)
Size and Slope (pipe)	
Building sewer	23.01
Main sewer	22.03
Specifications and Details	20
Splice	7.02
Staking	
Construction	7.01(a), 19.02
Storm Drain Crossings	
Building sewer	23.14
Main sewer	22.12
Structure	
Type and location	23.19
Surveying Instruments.....	7.01(c), 7.01(d)
----- T -----	
Television Inspection	13
Testing	
Building sewer	12.02
Main sewer	12.01
Pressure sewer	12.03
Test Wye	
Building sewer	23.19(d)
Trench	
Backfilling	9
Definition.....	9.01

Material	
Above pipe embedment	9.04
Compaction	9.05(c)
Intersections	22.10, 23.17
Trenching	
Access to private drives	8.02(h)
Blasting	8.02(f)
Bracing and shoring	8.02(e)
Compaction	8.02(d)
Contractor's responsibility	8.02(j)
Mud or soft or spongy material.....	8.02(a)
Open trench permitted	8.02(i)
Open trenching required	8.02
Over-excavated areas.....	8.02(c)
Rock	8.02(b)
Sewer subgrade dewatering	8.02(g)
	----- V -----
Verification	
Of existing sewer or structure	7.01(g)
	----- W -----
Work	
Scope of	3.01
Work Order	
Signed by responsible party.....	18.03
Emergency repair	18.03



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: May 1, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Sami E. Ghossain, Manager of Technical Services
Raymond Chau, CIP Coach
Derek Chiu, Assistant Engineer

SUBJECT: Agenda Item No. 11 - Meeting of May 8, 2017
Consider a Resolution to Accept the Construction of the Digesters No. 1 and 3 Gas Isolation Valves from TNT Industrial Contractors, Inc. and Authorize Recordation of a Notice of Completion

Recommendation

Staff recommends the Board consider a resolution to accept the construction of the Digesters No. 1 and 3 Gas Isolation Valves Project (Project) from TNT Industrial Contractors, Inc. (TNT) and authorize recordation of a Notice of Completion.

Background

Digester No. 3 was originally constructed in 1962 and Digesters No. 1 and 2 were constructed during the 1978 plant expansion project. The three digesters were constructed in close proximity to each other. The individual digester gas pipelines from the dome of each of the three digesters are combined on the roof of Heating and Mixing Building No. 1 before connecting to the digester gas pipeline loop. Figure 1 shows the location of the digester facilities.

Before this project, Staff was previously only able to isolate the digester gas pipeline from Digester No. 2 without affecting the operation of the other two digesters. Staff was unable to isolate the digester gas pipelines between the domes of Digesters No. 1 and 3 and the digester gas pipeline loop. If staff had to take either Digester No. 1 or No. 3 out of service, the three

digesters were taken out of service together. The Plant's solids process does not have the capacity to allow the three digesters to be taken out of service at the same time.

Project Scope

The Project included the following major scope items:

1. Installation of a temporary bypass piping system at Digesters No. 1, 2, and 3.
2. Installation of digester gas isolation valves and associated piping components and pipe supports.

Staff completed the design of the Project.

Construction Contract

On January 23, 2017, the Board awarded the Project's construction contract to TNT in the amount of \$99,908. Staff issued the Notice to Proceed to TNT on February 7, 2017. The 75-day project was scheduled to be completed on April 22, 2017. TNT substantially completed the Project on March 31, 2017. Staff provided construction management and inspection services for the Project.

The attached Figures 2 through 5 show the completed improvements.

Change Orders

The Project was completed without any change orders.

TNT has completed the Project's punch list items and the District has assumed beneficial use of the Project. Staff recommends the Board considers a resolution to accept the construction of the Digesters No. 1 and 3 Gas Isolation Valves Project from TNT Industrial Contractors, Inc. and authorize recordation of a Notice of Completion.

PRE/SEG/RC/DC:ks

Attachments: Figure 1 – Plant Digester Gas Pipeline Loop
Figures 2 through 5 – Photos of the Project improvements
Resolution
Notice of Completion

FIGURE 1 – PRIMARY DIGESTERS NO. 1 AND 3 GAS ISOLATION VALVES PROJECT





Figure 2 – Primary Digester No. 1 Isolation Valve and Pipe Support



Figure 3 – Primary Digester No. 3 Isolation Valve and Pipe Support



Figure 4 – Bypass Piping Connection Valve at Heating and Mixing Building No. 2



Figure 5 – Temporary Bypass Piping at Primary Digester No. 1

RESOLUTION NO. _____

**ACCEPT CONSTRUCTION OF THE
DIGESTERS NO. 1 AND 3 GAS ISOLATION VALVES PROJECT
LOCATED IN THE CITY OF UNION CITY, CALIFORNIA
FROM TNT INDUSTRIAL CONTRACTORS, INC.**

RESOLVED, by the Board of Directors of the UNION SANITARY DISTRICT that it hereby accepts the Digesters No. 1 and 3 Gas Isolation Valves Project from TNT Industrial Contractors, Inc., effective May 8, 2017.

FURTHER RESOLVED: That the Board of Directors of the UNION SANITARY DISTRICT authorize the General Manager/District Engineer, or his designee, to execute and record a "Notice of Completion" for the Project.

On motion duly made and seconded, this resolution was adopted by the following vote on May 8, 2017:

AYES:

NOES:

ABSENT:

ABSTAIN:

TOM HANDLEY
President, Board of Directors
Union Sanitary District

Attest:

ANJALI LATHI
Secretary, Board of Directors
Union Sanitary District



**RECORDING REQUESTED BY
AND WHEN RECORDED
RETURN TO:**

**Regina McEvoy
Union Sanitary District
5072 Benson Road
Union City, CA 94587**

NO RECORDING FEE – PER GOVERNMENT CODE SECTIONS 6103 & 27283 (R&T Code 11911)

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN by the **UNION SANITARY DISTRICT**, Alameda County, California, that the work hereinafter described, the contract for the construction of which was entered into on January 23, 2017, by said District and **TNT Industrial Contractors, Inc.**, 3600 51st Avenue, Sacramento, CA 95823, Contractor for the Project, “Digesters No. 1 and 3 Gas Isolation Valves Project,” was substantially completed on March 31, 2017 and accepted by said District on May 8, 2017.

The name and address of the owner is the **UNION SANITARY DISTRICT**, at 5072 Benson Road, Union City, CA 94587.

The estate or interest of the owner is: FEE SIMPLE ABSOLUTE.

The description of the site where said work was performed and completed is the Union Sanitary District’s Wastewater Treatment Plant, located at 5072 Benson Road, City of Union City, County of Alameda, State of California.

The undersigned declares under penalty of perjury that the foregoing is true and correct.

Executed on _____ at UNION CITY, CALIFORNIA.

PAUL R. ELDREDGE, P.E.
GENERAL MANAGER/DISTRICT ENGINEER
UNION SANITARY DISTRICT



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: April 28, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Michelle Powell, Communications and Intergovernmental Relations Coordinator

SUBJECT: Agenda Item No. 12 - Meeting of May 8, 2017
Information Item: **Legislative Update on Regional, State, and National Issues of Interest to the Board**

Recommendation

Information only

Background

The Board indicated that it wishes to receive periodic reports on legislation and other information that may impact or be of interest to the District. The Board was last updated at its December 12, 2016 meeting. If there are is any additional information or a different format desired by the Board, staff will incorporate feedback into future reports.

Following are summaries of information staff believes would be most significant to the Board. Attached are more comprehensive lists of state and federal legislation currently tracked by industry associations. This document and its attached lists contain the most updated information available as of the publishing date of this staff report.

Regional News:

Alameda County Water District (ACWD)

- On February 9, 2017, the ACWD Board of Directors adopted a 2-year water-rate increase to both the bimonthly service and the per-unit water consumption charge. A 20% increase went into effect March 1, 2017, and a 5% increase will be effective March 1, 2018.
- The Board also approved late payment fees and a customer assistance program that will provide a \$15 bimonthly credit for income-qualified customers.

City of Fremont

- Council approved a resolution on March 21, 2017 to transition from an at-large to a district-based election system in response to receipt of a letter stating that Fremont's at-large elections violate the California Voting Rights Act of 2001, and that there is evidence of racially polarized voting in the Fremont electorate. Under the CVRA, minimal evidence of racially polarized voting can result in a court ordering a change from at-large voting to district-based elections, even if there is no evidence of an electoral injury. Five public hearings will take place:
 - April 4, 2017 (Composition of Districts)
 - April 18, 2017 (Composition of Districts)
 - May 2, 2017 (Draft Maps)
 - May 16, 2017 (Draft Maps)
 - June 6, 2017 (Approval or Denial of Ordinance Establishing District Elections)
- The Fremont Chamber of Commerce held its annual State of the City luncheon on March 31, 2017. Mayor Lily Mei's address included highlighting biotechnology as Fremont's largest advanced industry, progress of downtown Fremont construction, the new Warm Springs/South Fremont BART station and Fremont Innovation District, and celebrating Fremont's diversity.

The Chamber hosted a panel discussion on Wednesday, April 25, 2017 regarding Fremont's consideration of transitioning to District-based elections. The panel included Councilmember Raj Salwan and three subject matter experts. Councilmember Salwan provided background regarding the process that is currently underway in Fremont, and encouraged citizens to attend the scheduled public meetings and communicate with council. The subject matter experts provided input regarding several possible election methods.

City of Newark

- The Newark Chamber of Commerce held its annual State of the City luncheon on April 13, 2017. Mayor Al Nagy's address included highlighting that approximately 60% of the city's revenues come from sales tax, property taxes and hotel taxes. He noted that a PERS reserve fund has been established to help reduce long-term pension costs, and touched on renovation of Newpark Mall, several housing developments and industrial park tenants, the City's Parks Master Plan, and the future new Civic Center.

City of Union City

- The City continues its General Plan Update activities. Staff is updating the draft elements (policy document) and will bring them to the General Plan Advisory Committee, Planning Commission, and City Council throughout Summer and Fall 2017.
- Owners of property adjacent to USD's Union City treatment plant proposing to build a religious facility on the site are currently addressing comments from the City on their planned development.

Alameda County

- Several bus service changes were implemented as of Sunday, March 26, 2017, to help simplify some parts of the system while improving on-time performance and service reliability.
- AC Transit announced its one-year pilot operation of Flex. Much like ride-sharing services, Flex is an on-demand bus service within a designated zone in the Tri-City area of Newark, Union City and Fremont. To test the success of this transit model, AC Transit is temporarily suspending operation of Line 275 starting March 27, 2017 and continuing through March 2018.
- East Bay Community Energy Authority Joint Powers Agreement: The cities of Fremont and Union City have joined Alameda County and the Cities of Albany, Berkeley, Dublin, Emeryville, Hayward, Livermore, Oakland, Piedmont, and San Leandro in the formation of this Joint Powers Agreement (JPA). The cities of Newark and Pleasanton have opted to take a "wait and see" approach regarding the JPA. It is the intent of the agreement to "promote the development and use of a wide range of renewable energy sources and energy efficiency programs, including but not limited to State, regional and local solar and wind energy production." The JPA Board has met monthly beginning January 2017. At its meeting of April 12, 2017, the Board considered extending the timeline for its program launch from October 2017 to Spring 2018. The District will continue to monitor the progress of the JPA.

- District 1 Supervisor Scott Haggerty was elected Metropolitan Transportation Commission Vice-Chair for a two-year term at the February 22, 2017 Commission meeting. Supervisor Haggerty also serves as chair of MTC's Operations Committee.

Alameda County Special Districts Association (ACSDA)

- The ACSDA President, Castro Valley Sanitary District General Manager Roland Williams, recently sent an opposition letter regarding AB 898 (Frazier D-Discovery Bay) to the Chair of the Assembly Committee on Local Government. The bill proposes reallocating \$10.5 million in property tax revenues from East Bay Regional Park District to the East Contra Costa Fire Protection District. The ACSDA letter states that diversion of property tax monies from a high performing agency which has the trust of the voters to an agency which has not built sufficient voter support is a dangerous precedent, and urges the Committee Chair to strongly oppose the bill as a matter of good governance.

State Legislation:

<p>SB 229</p>	<p>Wieckowski (D) Accessory dwelling units Position: CASA – Work with author (CASA subcommittee); CSDA - Watch Status: Appropriations to hear 5/1/2017</p>
<p>Summary: In 2016, the Legislature revised second unit laws to rename second units "Accessory Dwelling Units" (ADUs) and address some of the barriers to ADU creation. These laws require a local agency to approve an ADU application if the ADU meets certain conditions, including local building code requirements, and: the increased floor area of an attached ADU does not exceed 50% of the existing living area and does not increase the total floor space area by more than 1,200 square feet; and, the total floor area of a detached ADU does not exceed 1,200 square feet.</p> <p>This bill allows local ordinances regulating ADUs to allow those units to exceed the limits on floor area specified in current ADU law. It prohibits special districts from treating an ADU as a new residential use for the purposed of calculating connection fees or capacity charges or requiring a new connection for an attached ADU that meets the requirement in existing law for ministerial approval. The bill also requires any other connection fee or capacity charge levied by a special district to be proportionate to the burden of the proposed ADU.</p> <p>The Senate Committee on Governance and Finance expressed concern that SB 229 uses different language to prohibit special district connection fees from the language limiting city and county connection fees, noting that these changes could inadvertently prohibit special district from imposing ALL connection fees, even those for units that are expansions outside the existing footprint of the resident or accessory structures on the lot. The comments also note that this bill includes findings and declarations that local agencies may levy fees to cover the costs of the program.</p>	

SB 231	Hertzberg (D) Local Government: fees and charges Position: CASA – Work with author; CSDA - Watch Status: In Assembly. Read first time. Held at Desk 4/27/17
<p>Summary: Comments by the Senate Committee on Governance and Finance: In 2002, an appellate court ruled that the meaning of sewer in Proposition 218 was “ambiguous,” and proceeded to develop a new definition of sewer service that did not include storm water without citing any sources for that definition. As a result, storm water programs must meet a higher standard than other water and sewer services to raise capital, and local governments are struggling to fund the projects they need to meet state and federal water quality regulations.</p> <p>SB 231 addresses this problem by providing a definition of sewer that “definition predates” (USD quotation marks) Proposition 218 and treats fees for storm water like all other water and sewer fees. SB 231 would make it easier for local governments to levy fees to fund storm water cleanup, according to this committee, and for this reason, some local governments argue that SB 231 could undermine their position that State Water Resources Control Board mandates are not exempt from reimbursement, with the result that local governments pay more and the state pays less.</p>	
SB 448	Wieckowski (D) Local government: organization: districts Position: CASA – Watch close; CSDA – Oppose unless Amended 1 (high priority) Status: Amended in Senate, Passed by Committee on Governance and Finance 4/26/17, referred to Appropriations
<p>Summary: The bill requires the State Controller to publish on its website a comprehensive list of special districts on or before July 1, 2019. The list must be updated every year. It also requires that if a special district’s audit is conducted by a certified public accountant or public accountant, a report must be filed with the district’s principal LAFCO.</p> <p>SB 448 requires all special districts to submit a statement of purpose when adhering to the requirement to provide the specified financial materials to the Controller and the LAFCO. The controller must publish each statement of purpose on its website. The statement of purpose must include: a list of any previous efforts made by the special district, LAFCO, or county toward dissolution, reorganization, or consolidation of the special district; the date that the special district last performed a service; any planned date that the special district plans to perform a service; an explanation for why services provided by the special district cannot be provided by the county or city in which the special district is located; and a list of services provided by the special district that are also provided by the county or city, if any.</p> <p>SB 448 defines an “idle district” as any special district that has not provided the required</p>	

financial materials to the Controller two years from the date in which the materials are due. This bill requires the Controller to create a list of idle districts by October 1, 2018, and every two years thereafter. SB 448 specifies that a LAFCO can use the statement of purpose to initiate the dissolution process.

SB 448 requires the relevant LAFCO to dissolve inactive districts after holding one public hearing on the dissolution. An inactive district may not object to a dissolution proceeding. An inactive district meets the following criteria: Has had no financial transactions in the previous year; has no assets; has no fund equity; has no outstanding debts, judgments, litigation, contracts, liens, claims, or postemployment liabilities.

SB 448 requires a list of all services by a city, county, special district, or schools district that are funded by the general ad valorem property tax and any special taxes or special assessments levied on the county tax bill provided to property owners.

SB 450	Hertzberg (D) Public bodies: bonds: public notice Position: CASA – Watch; CSDA - Concerns Status: Appropriations to hear 5/1/2017
---------------	--

Summary: The bill requires that, prior to the authorization to issue bonds with a term greater than 13 months, the governing body of a city, county, special district, public authority, public corporation, nonprofit corporation or any other statutorily constituted public entity that is allowed to issue bonds to obtain and disclose all of the following information in a public meeting:

- The annual percentage rate of the bond, which means the cost of interest expressed as a yearly rate.
- The finance charge of the bond, which means the sum of all charges payable by the debtor, including the interest and transaction costs, expressed in dollar terms.
- The amount financed by the bond, which means the amount of credit provided by the creditor.
- The total payment amount, which means the sum total of all payments the borrower will have made by the time the full balance has been paid and includes all fees and finance charges. The total payment amount must be expressed to the final maturity of the borrowing.

SB 450 requires the above information to be obtained as a good faith estimate from an underwriter, financial advisor, or private lender. The information can also be obtained from a third-party borrower under certain circumstances.

SB 740	Wiener (D) Onsite treated water
---------------	--

	Position: CASA – Work with author (CASA subcommittee); CSDA - Watch Status: Appropriations set to hear 5/8/17
Summary: Would require the State Board, on or before December 1, 2018, in consultation with other state agencies, to adopt regulations consistent with federal and state law in effect on January 1, 2018, to provide comprehensive risk-based standards for local jurisdictions permitting programs for onsite recycling of water in multifamily residential, commercial, and mixed-use buildings for non-potable use.	
AB 151	Burke (D) California Global Warming Solutions Act of 2006: market-based compliance mechanisms: scoping plan: report Position: CASA – Watch; CSDA - Watch Status: Referred to Appropriations 4/24/17
Summary: Eliminates the 12/31/2020 limit of the Air Resources Board’s (ARB) cap and trade authority, extending it indefinitely, and disconnects the cap and trade authority from the purpose of achieving the statewide greenhouse gas (GHG) emissions limit. Requires ARB to develop a specified incentive system for compliance offsets. Requires ARB to report to the Legislature prior to adopting specified GHG regulations, and report on specified workforce issues related to GHG regulation.	
AB 277	Mathis (R) Water and Wastewater Loan and Grant Program Position: CASA – Approve; CSDA – Support 3 Status: Appropriations referred to suspense file 4/5/17
Summary: Authorizes the State Water Resources Control Board (SWRCB) to implement low-interest loan and grant programs for counties and qualified nonprofit organizations, as defined, to fund water and wastewater facilities and improvements for individual households and small water systems (at least two, but not more than 14, service connections), to the extent funds are available.	
AB 378	Garcia, Christina (D) California Global Warming Solutions Act of 2006: regulations Position: CASA – Watch Status: Referred to Appropriations 4/25/17, hearing set 5/3/17
Summary: Extends the Air Resources Board’s (ARB) cap and trade authority to 2030, prohibits a facility from increasing its annual greenhouse gas (GHG) emissions compared to the 2014-2016 average, authorizes ARB to adopt “no-trade zones” or facility-specific declining GHG limits, as specified, requires ARB to adopt air pollutant emissions standards that industrial facilities must meet to receive free allowances after 2020. Assembly Natural Resources Committee analysis notes that the broad application of a static cap to every facility may be	

impractical; e.g. it does not account for normal variations in production.

AB 551	Levine (D) Political Reform Act of 1974: postemployment restrictions Position: CASA – Watch Close; work with other organizations; CSDA – Oppose 3 Status: Passed Appropriations 4/26/17; ordered to third reading by Assembly 4/27/17
---------------	--

Summary: This bill prohibits a former local elected official or top administrator for a local agency, for a year after leaving that position, from appearing before or communicating with the former agency, for compensation, as an independent contractor for another government agency. Existing law prohibits former local elected officials and specified former employees of local governments from representing any other person by appearing before or communicating with their former agency in an attempt to influence specified agency decisions.

Existing law also provides that this restriction does not apply to an individual, who at the time of the appearance or communication, is a board member, officer, or employee of another local government agency, or an employee or representative of a public agency, and is appearing or communicating of behalf of that agency. This bill would remove this exclusion, thereby making these appearances or communications on behalf of an individual's agency subject to the one-year prohibition.

AB 554	Cunningham (R) Desalination: statewide goal Position: CASA – Watch; CSDA - Watch Status: Appropriations referred to suspense file 4/26/17
---------------	--

Summary: Existing law, the Cobey-Porter Saline Water Conversion Law, states the policy of this state that desalination projects developed by or for public water entities be given the same opportunities for state assistance and funding as other water supply and reliability projects, and that desalination be consistent with all applicable environmental protection policies in the state. The law provides that it is the intention of the Legislature that the Department of Water Resources undertake to find economic and efficient methods of desalting saline water so that desalted water may be made available to help meet the growing water requirements of the state.

This bill would establish a goal to desalinate 300,000 acre-feet of drinking water per year by the year 2025 and 500,000 acre-feet of drinking water per year by the year 2030.

AB 574	Quirk (D) Potable reuse
---------------	--

	Position: CASA – Support; CSDA - Watch Status: Appropriations hearing date: 5/3/17
<p>Summary: In December 2016, the State Water Resources Control Board (SWRCB) issued a report to the California Legislature finding that it is feasible to develop direct potable reuse regulations, although additional potable reuse research must be completed concurrently or before regulations are developed. This bill would establish a timeframe for the development of regulations for potable reuse that are consistent with the SWRCB report, enable additional safe uses of recycled water, and create two new subcategories of potable reuse.</p> <p>CASA’s letter of support states the bill will eliminate current confusing statutory definitions for indirect and direct potable reuse, while distinguishing subcategories of potable reuse, including: groundwater augmentation, reservoir augmentation, raw water augmentation, and treated water augmentation. Further, the bill will require the SWRCB to adopt statewide regulations for potable reuse for raw water augmentation by 2021.</p>	
AB 851	Caballero (D) Local Agency design-build projects Position: CASA – Watch; CSDA – Support 3 Status: Re-referred to Appropriations 4/27/17
<p>Summary: This bill would allow additional types of special districts to use the design-build procurement method that is authorized for specified local agencies, and allows cities, counties, and special districts to use design-build for additional types of projects; specifically: Flood protection improvements, habitat restorations or enhancements, groundwater recharge or storage facilities, water treatment facilities, and the retrofit, repair, or expansion of existing surface water storage facilities.</p>	
AB 869	Rubio (D) Water use: landscaping: recycled water Position: CASA – Watch close; CSDA - Watch Status: Referred to Appropriations 4/25/17
<p>Summary: This bill excludes, from the calculation of any water use of water efficiency target established after 2020, recycled water, as specified, delivered within the service area of an urban retail or wholesale water supplier. The bill states that an urban water supplier shall not be required by any regulation to reduce the amount of recycled water it produces, sells, or distributes for beneficial potable or nonpotable uses at any time, including, but not limited to, during an emergency declared by the Governor.</p>	
AB 967	Gloria (D) Human Remains Disposal: Alkaline Hydrolysis: licensure and regulation Position: CASA – approve, if amended (CASA subcommittee)

	Status: Referred to Appropriations 4/25/17
Summary:	This bill establishes a licensure and regulation process for hydrolysis facilities under the Cemetery and Funeral Bureau, imposes the same requirements on hydrolyzed remains as for cremated remains; and, specifies the requirements of disposal of hydrolysate. The bill states that hydrolysate shall not be disposed of using a sanitary sewer system or collection system. Hydrolysate must be transported by a state-licensed biomaterials handler to at POTW that voluntarily elects to accept it. <u>The District is researching whether possible pretreatment issues could arise if the District elected to voluntarily accept hydrolysate.</u>
AB 1036	McCarty (D) Organic Waste: composting Position: CASA referred to its Climate/Energy Workgroup; CSDA - Watch Status: Appropriations ordered to consent calendar 4/27/17
Summary:	The bill clarifies and updates the requirements that ensure state agencies coordinate their efforts to achieve the state's recycling and greenhouse gas (GHG) reductions goals. Specifically, this bill specifies that the CalEPA and California Department of Food and Agriculture (CDFA) align, rather than coordinate, regulation, and include internal policy goals relating to organic waste diversion. The bill also requires CalEPA to include the updated Short-Lived Climate Pollutants (SLCP) Strategy in its assessment of the state's progress toward developing organic waste and recycling infrastructure.
AB 1089	Mullin (D) Local elective offices: contribution limitations Position: CASA – Watch; CSDA - Watch Status: Appropriations referred to suspense file
Summary:	This bill establishes default campaign contribution limits for local office at the same level as the limit on contributions from individuals to candidates for Senate and Assembly (\$4,400 per contributor, per election), effective January 1, 2019. This bill also continues to permit a local jurisdiction to establish its own contribution limits, which prevail over the default limits contained in this bill.
AB 1333	Dababneh (D) Political Reform Act of 1974: local government agency notices Position: CASA – Disapprove; CSDA – Oppose 3 Status: Appropriations hearing date: 5/3/2017
Summary:	Requires local government agencies that have an internet website to prominently post on that site a notice of any upcoming election in which the voters will vote on a tax measure or proposed bond issuance of the agency, as specified. The bill requires the notice to be posted on the agency's website within seven days of either the governing body of the agency voting to place the tax measure or proposed bond issuance on the ballot or the tax

measure or proposed bond issuance qualifying to be placed on the ballot as an initiative measure. The bill requires the notice to be posted on the website home page, unless a clearly labeled direct link to the notice is placed on the home page. It also requires agencies that publish an electronic newsletter to include the notice in the electronic newsletter.

ACA 4	<p>Aguiar-Curry (D) Local government financing: affordable housing and public infrastructure: voter approval Position: CASA – Support if amended; work with author; CSDA – Support if Amended 3 Status: Referred to Committees on Local Government and Appropriation 4/24/17</p>
<p>Summary: The California Constitution prohibits the ad valorem tax rate on real property from exceeding 1% of the full cash value of the property, subject to certain exceptions. This measure would create an additional exception of the 1% limit that would authorize a city, county, or city and county to levy an ad valorem tax to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing, if the proposition proposing that tax is approved by 55% of the voters of the city, county, or city and county, as applicable, and the proposition includes specified accountability requirements.</p>	

Attachments: CASA 2017 State Bill Positions List as of April 28, 2017
CASA Federal Legislation Matrix as of March 17, 2017

**All CASA Bills - SLC Copy
4/28/2017**

AB 18 (Garcia, Eduardo D) California Clean Water, Climate, Coastal Protection, and Outdoor Access For All Act of 2018.

Current Text: Amended: 2/23/2017 [Text](#)

Last Amend: 2/23/2017

Status: 3/20/2017-Read third time. Urgency clause adopted. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment.

Location: 3/20/2017-S. DESK

Summary: Would enact the California Clean Water, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, which, if approved by the voters, would authorize the issuance of bonds in an amount of \$3,105,000,000 pursuant to the State General Obligation Bond Law to finance a clean water, climate, coastal protection, and outdoor access for all program. This bill contains other related provisions.

Position	Subject
Work w/author	

AB 52 (Cooper D) Public employees: orientation and informational programs: exclusive representatives.

Current Text: Introduced: 12/5/2016 [Text](#)

Status: 4/18/2017-In committee: Set, first hearing. Hearing canceled at the request of author.

Location: 1/19/2017-A. P.E.,R. & S.S.

Summary: Current law, including the Meyers-Milias-Brown Act, the Ralph C. Dills Act, the Trial Court Employment Protection and Governance Act, the Trial Court Interpreter Employment and Labor Relations Act, and the Los Angeles County Metropolitan Transportation Authority Transit Employer-Employee Relations Act, as well as provisions commonly referred to as the Educational Employment Relations Act and the Higher Education Employer-Employee Relations Act, regulates the labor relations of the state, the courts, and specified local public agencies and their employees. This bill would require the public employers regulated by the acts described above to provide all employees an orientation. The bill would also require these public employers to permit the exclusive representative, if applicable, to participate.

Position	Subject
Watch	Local Government

AB 92 (Bonta D) Public contracts: payment.

Current Text: Introduced: 1/9/2017 [Text](#)

Status: 4/27/2017-Read second time. Ordered to Consent Calendar.

Location: 4/27/2017-A. CONSENT CALENDAR

Summary: Current law until January 1, 2018, authorizes the retention proceeds withheld from any payment by an awarding entity, as described, from the original contractor, by the original contractor from any subcontractor, and by a subcontractor from any subcontractor to exceed 5% on specific projects where the director of the applicable department, as specified, has made, or the governing body of the public entity or designated official of the public entity has approved, a finding prior to the bid that the project is substantially complex and requires a higher retention and the department or public entity includes both this finding and the actual retention amount in the bid documents. This bill would extend the operation of these provisions to January 1, 2023.

Position	Subject
Watch	Local Government

AB 151 (Burke D) California Global Warming Solutions Act of 2006: market-based compliance mechanisms: scoping plan: report.

Current Text: Amended: 3/2/2017 [Text](#)

Last Amend: 3/2/2017

Status: 4/24/2017-VOTE: Do pass as amended and be re-referred to the Committee on [Appropriations]

Location: 4/24/2017-A. APPR.

Summary: Would require the State Air Resources Board to report to the appropriate policy and fiscal committees of the Legislature to receive input, guidance, and assistance before adopting guidelines and regulations implementing the scoping plan and a regulation ensuring statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030. This bill contains other related provisions and other existing laws.

Position	Subject
----------	---------

AB 184 (Berman D) Sea level rise planning: database.**Current Text:** Introduced: 1/19/2017 [Text](#)**Status:** 4/27/2017-Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment.**Location:** 4/27/2017-S. DESK**Summary:** Current law requires that various public agencies and private entities provide to the Natural Resources Agency, on a biannual basis, sea level rise planning information, as defined, that is under the control or jurisdiction of the public agencies or private entities, and requires the agency to determine the information necessary for inclusion in the database, as prescribed. Existing law repeals these provisions on January 1, 2018. This bill would eliminate the January 1, 2018, repeal date of those provisions.**Position**
Watch**Subject**
Climate
Change/Energy
Workgroup**AB 196** (Bigelow R) Greenhouse Gas Reduction Fund: water supply and wastewater systems.**Current Text:** Amended: 3/6/2017 [Text](#)**Last Amend:** 3/6/2017**Status:** 4/18/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 10. Noes 0.) (April 17). Re-referred to Com. on APPR.**Location:** 4/18/2017-A. APPR.**Summary:** Current law requires moneys from the Greenhouse Gas Reduction Fund to be allocated for the purpose of reducing greenhouse gas emissions in this state and satisfying other purposes. Current law authorizes specified investments, including water use and supply, if the investment furthers the regulatory purposes of the California Global Warming Solutions Act of 2006 and is consistent with law. This bill would authorize the use of the moneys in the fund for electric pump efficiency, water and wastewater systems, pump and pump motor efficiency improvements, and drinking water transmission and distribution systems' water loss if the investment furthers the regulatory purposes of the act and is consistent with law.**Position**
Refer to Legis
Comm**Subject****AB 239** (Ridley-Thomas D) California Environmental Quality Act: urbanized areas.**Current Text:** Introduced: 1/30/2017 [Text](#)**Status:** 4/24/2017-In committee: Set, first hearing. Failed passage. Reconsideration granted.**Location:** 2/6/2017-A. NAT. RES.**Summary:** CEQA defines the terms "urban area" and "urbanized area" to mean, among other things, an unincorporated area that is completely surrounded by one or more incorporated cities and the population density of the unincorporated area at least equals the population density of the surrounding city or cities. This bill would instead specify that the population density of the unincorporated area be at least 1,000 persons per square mile.**Position**
Watch**Subject**
Local
Government**AB 277** (Mathis R) Water and Wastewater Loan and Grant Program.**Current Text:** Amended: 3/27/2017 [Text](#)**Last Amend:** 3/27/2017**Status:** 4/5/2017-In committee: Set, first hearing. Referred to suspense file.**Location:** 3/21/2017-A. APPR.**Summary:** Would, to the extent funding is made available, authorize the State Water Resources Control Board to establish the Water and Wastewater Loan and Grant Program to provide funding to eligible applicants for specified purposes relating to drinking water and wastewater treatment. This bill would authorize a county or qualified nonprofit organization to apply to the board for a grant to award loans or grants, or both, to an eligible applicant. The bill would authorize the board to use a funding source that is authorized for and consistent with the purposes of the program.**Position**
Approve**Subject****AB 313** (Gray D) Water.

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 13. Noes 0.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Current law authorizes the State Water Resources Control Board to adopt an order setting administrative civil liability based on the allegations set forth in the complaint without a hearing, unless a written request for a hearing signed by, or on behalf of, the party served with the complaint is delivered to or received by mail by the board within 20 days after receipt of the complaint. This bill, commencing July 1, 2018, would establish a Water Rights Division within the Office of Administrative Hearings, as prescribed.

Position

Watch

Subject

[AB 339](#)

(Mathis R) State Water Pollution Cleanup and Abatement Account.

Current Text: Amended: 4/4/2017 [Text](#)

Last Amend: 4/4/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 7. Noes 0.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: The Porter-Cologne Water Quality Control Act creates the State Water Pollution Cleanup and Abatement Account in the State Water Quality Control Fund and continuously appropriates moneys in the account to the state board for the purposes of cleaning up waste or abating its effects on state waters. Existing law, until July 1, 2018, authorizes the state board to pay these moneys from the account to, among others, a community water system that services a disadvantaged community to be used to assist in addressing urgent drinking water need, among other purposes. This bill would limit the above-described payments to grants, and would delete the July 1, 2018, sunset date. By extending the term of an existing appropriation, this bill would make an appropriation.

Position

Watch

Subject

[AB 355](#)

(Chu D) Water pollution: enforcement.

Current Text: Amended: 3/28/2017 [Text](#)

Last Amend: 3/28/2017

Status: 4/27/2017-Read second time. Ordered to third reading.

Location: 4/27/2017-A. THIRD READING

Summary: Current law permits the State Water Resources Control Board or regional board, in lieu of assessing all or a portion of the mandatory minimum penalties against a publicly owned treatment works serving a small community, as defined, to elect to require the publicly owned treatment works to spend an equivalent amount towards completion of a compliance project proposed by the publicly owned treatment works if the state board or regional board makes certain findings. Current law, for these purposes, defines "a publicly owned treatment works serving a small community." This bill, for purposes of the exception, would instead define publicly owned treatment works serving a small community as a publicly owned treatment works serving a population of 20,000 persons or fewer or a rural county, with a financial hardship.

Position

Support

Subject

[AB 378](#)

(Garcia, Cristina D) Greenhouse gases, criteria air pollutants, and toxic air contaminants.

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/25/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 7. Noes 3.) (April 24). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: The California Global Warming Solutions Act requires the State Air Resources Board, when adopting rules and regulations to achieve greenhouse gas emissions reductions beyond the statewide greenhouse gas emissions limit and to protect the state's most impacted and disadvantaged communities, to follow specified requirements, consider the social costs of the emissions of greenhouse gases, and prioritize specified emission reduction rules and regulations. This bill would additionally require the state board to consider and account for the social costs of the emissions and greenhouse gases when adopting those rules and regulations.

Position

Watch

Subject

Climate
Change/Energy
Workgroup

[AB 398](#)

([Garcia, Eduardo D](#)) Air pollution.

Current Text: Amended: 4/17/2017 [Text](#)

Last Amend: 4/17/2017

Status: 4/18/2017-Re-referred to Com. on APPR.

Location: 4/3/2017-A. APPR.

Summary: Current law establishes the State Air Resources Board, air quality management districts, and air pollution control districts to address the emissions of air pollution. Current law designates the air districts with the primary responsibility for the control of air pollution from sources other than mobile sources. Current law designated the state board with the primary responsibility for the control of air pollution from mobile sources. This bill would require the state board to appoint a dedicated ombudsman to respond to requests for data and analyses that are not readily available to the public and would require those requests to be processed in a timely manner.

Position

Refer to
Energy/Climate
Workgroup

Subject

Climate
Change/Energy
Workgroup

[AB 408](#)

([Chen R](#)) Eminent domain: final offer of compensation.

Current Text: Introduced: 2/9/2017 [Text](#)

Status: 3/20/2017-In committee: Set, final hearing. Hearing canceled at the request of author. From committee: Without further action pursuant to Joint Rule 62(a).

Location: 2/21/2017-A. JUD.

Summary: Current law governing settlement offers in eminent domain proceedings authorizes the recovery of litigation expenses under certain circumstances. This bill would provide that if a court finds, on motion of the defendant, that the offer of the plaintiff was lower than 90% of the compensation awarded in the proceeding, then the court would be required to include the defendant's litigation costs in the costs allowed. If the court finds that the offer of the plaintiff was at least 90% and less than 100% of the compensation awarded in the proceeding, the court would be authorized to include the defendant's litigation costs in the costs allowed.

Position

Oppose

Subject

Local
Government

[AB 429](#)

([Grayson D](#)) State water policy: water rights: use and transferability.

Current Text: Introduced: 2/13/2017 [Text](#)

Status: 2/14/2017-From printer. May be heard in committee March 16.

Location: 2/13/2017-A. PRINT

Summary: Current law declares that the growing water needs of the state require the use of water in an efficient manner and that the efficient use of water requires certainty in the definition of property rights to the use of water and transferability of those rights. This bill would make nonsubstantive changes to those declarations.

Position

Spot Bill, Watch
Close

Subject

[AB 474](#)

([Garcia, Eduardo D](#)) Hazardous waste: spent brine solutions.

Current Text: Introduced: 2/13/2017 [Text](#)

Status: 4/5/2017-In committee: Set, first hearing. Referred to suspense file.

Location: 3/21/2017-A. APPR.

Summary: Current law exempts from certain requirements of the Hazardous Waste Control Law wastes from the extraction, beneficiation, or processing of ores and minerals that are not subject to regulation under the federal Resource Conservation and Recovery Act of 1976, including spent brine solutions used to produce geothermal energy that meet specified requirements. This bill would exempt spent brine solutions that are byproducts of the treatment of groundwater to meet California drinking water standards from those same requirements if certain conditions are met, including that the spent brine solutions are transferred for dewatering via a closed piping system to lined surface impoundments regulated by the California regional water quality control boards.

Position

Watch

Subject

[AB 551](#)

([Levine D](#)) Political Reform Act of 1974: postemployment restrictions.

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/27/2017-Read second time. Ordered to third reading.

Location: 4/27/2017-A. THIRD READING

Summary: The Political Reform Act of 1974 prohibits, for a period of one year after the official leaves his or her position, elected and other specified local officials who held positions with a local government agency, as defined, from acting as agents or attorneys for, or otherwise representing, for compensation, any other person, by appearing before, or communicating with, that local government agency, or any committee, subcommittee, or present member of that local government agency, or any officer or employee of the local government agency. Current law excludes from this prohibition appearances and communications by a board member, officer, or employee of another local government agency, or an employee or representative of a public agency, as specified, in which the individual is appearing or communicating on behalf of that agency. This bill would specify that the one-year prohibition applies to independent contractors of a local government agency or a public agency who are appearing or communicating on behalf of that agency.

Position	Subject
Watch Close, Work with other organizations	Local Government

[AB 554](#) **(Cunningham R) Desalination: statewide goal.**

Current Text: Amended: 3/27/2017 [Text](#)

Last Amend: 3/27/2017

Status: 4/26/2017-In committee: Set, first hearing. Referred to suspense file.

Location: 3/28/2017-A. APPR.

Summary: The Cobey-Porter Saline Water Conversion Law provides that it is the intention of the Legislature that the Department of Water Resources undertake to find economic and efficient methods of desalting saline water so that desalted water may be made available to help meet the growing water requirements of the state. This bill would establish a goal to desalinate 300,000 acre-feet of drinking water per year by the year 2025 and 500,000 acre-feet of drinking water per year by the year 2030.

Position	Subject
Watch	

[AB 574](#) **(Quirk D) Potable reuse.**

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 15. Noes 0.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Current law required the State Department of Public Health to develop and adopt uniform water recycling criteria for surface water augmentation, as defined, by December 31, 2016, if a specified expert panel found that the criteria would adequately protect public health. Current law defined the terms "direct potable reuse," "indirect potable reuse for groundwater recharge," and "surface water augmentation" for these purposes. This bill would remove certain references to "direct potable reuse," "indirect potable reuse for groundwater recharge," and "surface water augmentation," and would instead specify the four different types of potable reuse projects as "groundwater augmentation," "reservoir augmentation," "raw water augmentation," and "treated drinking water augmentation."

Position	Subject
Support	

[AB 588](#) **(Dababneh D) Contractual assessments: financing public improvements: right to cancel documentation.**

Current Text: Amended: 3/23/2017 [Text](#)

Last Amend: 3/23/2017

Status: 3/27/2017-Re-referred to Com. on B. & F.

Location: 3/23/2017-A. B. & F.

Summary: Current law prohibits a public agency from permitting a property owner to participate in programs relating to voluntary contractual assessments to finance certain improvements, unless the property owner is given the right to cancel the contractual assessment in a document, as provided. Current law requires the document to contain specified information, including that if the property owner sends or delivers the written notice to cancel in some way other than mail, fax, or email, it must be delivered to a specified address no later than an unspecified date. This bill would instead require the document to provide that if the property owner sends or delivers the written notice to cancel in some way other than mail, fax, or email, it must be delivered to a specified address no later than midnight on the 3rd business day after whichever of specified events occurs last.

Position	Subject
Spot Bill, Watch Close	

[AB 640](#)

(Harper R) Recycled water: recycling criteria.

Current Text: Introduced: 2/14/2017 [Text](#)

Status: 2/15/2017-From printer. May be heard in committee March 17.

Location: 2/14/2017-A. PRINT

Summary: Current law, the Porter-Cologne Water Quality Control Act, requires the State Water Resources Control Board to establish uniform statewide recycling criteria for each varying type of use of recycled water if the use involves the protection of public health. The act defines recycling criteria to mean the levels of constituents of recycled water, and the means for assurance of reliability under the design concept that will result in recycled water that is safe for the uses to be made. This bill would make technical, nonsubstantive changes to that definition.

Position

Spot Bill, Watch
Close

Subject

[AB 641](#)

(Harper R) Water conservation and reclamation projects.

Current Text: Introduced: 2/14/2017 [Text](#)

Status: 2/15/2017-From printer. May be heard in committee March 17.

Location: 2/14/2017-A. PRINT

Summary: Current law, the Water Conservation Projects Act of 1985, declares that the intent of the act is to encourage local agencies and private enterprise to implement potential water conservation and reclamation projects by establishing a state program to finance or assist in financing projects that meet state criteria and will result in an additional supply of water for use in areas of need. This bill would make nonsubstantive changes in that provision.

Position

Spot Bill, Watch
Close

Subject

[AB 642](#)

(Harper R) Desalinated water.

Current Text: Introduced: 2/14/2017 [Text](#)

Status: 2/15/2017-From printer. May be heard in committee March 17.

Location: 2/14/2017-A. PRINT

Summary: The Cobey-Porter Saline Water Conversion Law declares that the growing water needs of the state require the development of cost-effective and efficient water supply technologies and that desalination technology is now feasible to help provide significant new water supplies from seawater, brackish water, and reclaimed water. This bill would declare the intent of the Legislature to enact subsequent legislation relating to desalination.

Position

Spot Bill, Watch
Close

Subject

[AB 733](#)

(Berman D) Enhanced infrastructure financing districts: projects: climate change.

Current Text: Amended: 3/23/2017 [Text](#)

Last Amend: 3/23/2017

Status: 4/17/2017-Read second time. Ordered to third reading.

Location: 4/17/2017-A. THIRD READING

Summary: Current law authorizes the legislative body of a city or a county to establish an enhanced infrastructure financing district to finance public capital facilities or other specified projects of communitywide significance, and makes related findings and declarations. This bill would additionally authorize the financing of projects that enable communities to adapt to the impacts of climate change, including, but not limited to, extreme weather events, sea level rise, flooding, heat waves, wildfire, and drought, and would make conforming changes to the Legislature's findings and declarations.

Position

Approve

Subject

[AB 765](#)

(Low D) Local initiative measures: submission to the voters.

Current Text: Introduced: 2/15/2017 [Text](#)

Status: 3/2/2017-Referred to Com. on E. & R.

Location: 3/2/2017-A. E. & R.

Summary: If a district initiative measure qualifies for the ballot, current law requires that the election for the measure be either at a special election or at the next regular election, depending on whether the initiative petition contains a specified request. This bill instead would require that the election for a county, municipal, or district initiative measure that qualifies for the ballot be the next statewide or regular election, as applicable, unless the governing body of the county, city, or district calls a special election. The bill also would make conforming changes.

Position

Subject

Watch

AB 816 (Kiley R) California Environmental Protection Agency: Natural Resources Agency: Web casts of public meetings and workshops.

Current Text: Introduced: 2/15/2017 [Text](#)

Status: 4/18/2017-From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. (Ayes 10. Noes 0.) (April 17). Re-referred to Com. on APPR.

Location: 4/18/2017-A. APPR.

Summary: Would require that each department, board, and commission of the Natural Resources Agency, except as specified, and each department, board, and office of the California Environmental Protection Agency Web cast all onsite public meetings, in a manner that enables listeners and viewers to ask questions and provide public comment by telephone or electronic communication commensurate with those attending the meeting. The bill would require the agencies to make the recording of a Web cast available online for no less than 3 years for subsequent viewing by interested members of the public.

Position

Subject

Watch

AB 851 (Caballero D) Local agency design-build projects.

Current Text: Amended: 4/17/2017 [Text](#)

Last Amend: 4/17/2017

Status: 4/27/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 9. Noes 0.) (April 26). Re-referred to Com. on APPR.

Location: 4/26/2017-A. APPR.

Summary: Current law defines the term "local agency" for specified provisions to mean specified entities, including a city or county, or a special district that operates specified types of facilities. Current law authorizes a city or county or a special district that falls within the definition of a local agency to use the design-build procurement process for specified types of public works projects. Current law requires specified information submitted by a design-build entity, as defined, in the design-build procurement process to be certified under penalty of perjury. This bill would modify the definition of "local agency" for those purposes to include special districts that provide or operate specified types of services or facilities. This bill would expand the list of public works projects for which a local agency may utilize the design-build procurement process.

Position

Subject

Support, if amended

Notes 1: Subcommittee:

Sharon Green
Kent Alm
Carl Nelson

AB 869 (Rubio D) Sustainable water use and demand reduction: recycled water.

Current Text: Amended: 3/28/2017 [Text](#)

Last Amend: 3/28/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 14. Noes 0.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Current law imposes various water use reduction requirements that apply to urban retail water suppliers, including a requirement that the state achieve a 20% reduction in urban per capita water use by December 31, 2020. This bill would require recycled water delivered within the service area of an urban retail water supplier or its urban wholesale water supplier for either nonpotable or potable use or that replenishes a groundwater basin and supplements the groundwater supply available to an urban retail water supplier be excluded from the calculation of any urban water use target or reduction in urban per capita water use.

Position

Subject

Watch

AB 943 (Santiago D) Land use regulations: local initiatives: voter approval.

Current Text: Introduced: 2/16/2017 [Text](#)

Status: 3/2/2017-Referred to Coms. on L. GOV. and E. & R.

Location: 3/2/2017-A. L. GOV.

Summary: Current law establishes procedures by which city ordinances may be enacted by initiative, including requiring that an ordinance proposed by the voters or submitted by the legislative body of the city be approved by a majority of the votes cast on the ordinance. This bill, in the case of an ordinance that would curb, delay, or deter growth or development within a city, require that an

ordinance proposed by the voters or submitted by the legislative body of the city receive 2/3 of the votes cast on the ordinance in order to become effective. The bill would declare that it addresses a matter of statewide concern.

Position **Subject**
Work w/author

AB 958 **(Ting D) Hazardous materials: perfluoroalkyl and polyfluoroalkyl substances.**

Current Text: Amended: 4/20/2017 [Text](#)

Last Amend: 4/20/2017

Status: 4/26/2017-Coauthors revised. From committee: Do pass and re-refer to Com. on APPR. (Ayes 5. Noes 2.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Would prohibit a person or entity from manufacturing, selling, or distributing in commerce any product that contains perfluoroalkyl or polyfluoroalkyl substances with eight or more carbon atoms. Because the bill would create a new crime, it would impose a state-mandated local program. The bill would require the department to revise the 2015–17 Priority Product Work Plan, and subsequent work plans, as necessary, to include food contact substances containing perfluoroalkyl or polyfluoroalkyl substances for consideration and evaluation as potential priority products under the Green Chemistry program.

Position **Subject**
Seek Info

AB 967 **(Gloria D) Human remains disposal: alkaline hydrolysis: licensure and regulation.**

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/25/2017-VOTE: Do pass as amended and be re-referred to the Committee on [Appropriations]

Location: 4/25/2017-A. APPR.

Summary: Would require the Cemetery and Funeral Bureau to license and regulate hydrolysis facilities, as defined, and hydrolysis facility managers, and would enact requirements applicable to hydrolysis facilities substantially similar to those applicable to crematoria. By expanding the definition of crimes relating to the disposition of human remains and creating new crimes, this bill would impose a state-mandated local program.

Position **Subject**
Approve, if amended

Notes 1: CASA SLC Subcommittee:

Carolyn Ginno
Sharon Green
Traci Minamide
Rebecca Long
Greg Kester
Jessica Gauger

AB 968 **(Rubio D) Urban water use: water efficiency.**

Current Text: Amended: 4/17/2017 [Text](#)

Last Amend: 4/17/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 14. Noes 0.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Would require each urban retail water supplier to develop a water efficiency target, as defined, for 2025 in its 2020 urban water management plan required to be submitted by July 1, 2021, and to achieve that target. The bill would authorize an urban retail water supplier to adjust and update the water efficiency target, as appropriate, when the supplier reports its compliance in achieving the water efficiency targets and its implementation of the identified performance measures in its 2025 urban water management plan required to be submitted by July 1, 2026. The bill would require each urban retail water supplier to meet its adjusted 2025 water efficiency target by December 31, 2025, unless the supplier makes a certain report to the department.

Position **Subject**
Watch

AB 979 **(Lackey R) Local agency formation commissions: district representation.**

Current Text: Amended: 4/27/2017 [Text](#)

Last Amend: 4/27/2017

Status: 4/27/2017-From committee chair, with author's amendments: Amend, and re-refer to Com. on L. GOV. Read second time and amended.

Location: 4/26/2017-A. L. GOV.

Summary: Current law requires a local agency formation commission, if it does not have representation from independent special districts on January 1, 2001, to initiate proceedings for representation of those districts upon the commission if requested by independent special districts, and specifies the procedures for those proceedings. This bill would revise the procedures for special district representatives to initiate those proceedings, and would authorize the commission to combine proceedings for appointing a member representing independent special districts on an oversight board pursuant to those proceedings, as specified.

Position	Subject
Watch Close	

[AB 1000](#) (Friedman D) Water conservation: certification.

Current Text: Introduced: 2/16/2017 [Text](#)

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 10. Noes 5.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Current law requires the State Energy Resources Conservation and Development Commission to establish minimum levels of operating efficiency to promote the use of energy and water efficient appliances. This bill would require the commission to certify innovative water conservation and water loss detection and control technologies that meet certain criteria.

Position	Subject
Watch	

[AB 1025](#) (Rubio D) Incompatible public offices.

Current Text: Amended: 4/20/2017 [Text](#)

Last Amend: 4/20/2017

Status: 4/26/2017-In committee: Set, first hearing. Hearing canceled at the request of author.

Location: 3/6/2017-A. ED.

Summary: Current law prohibits a public officer, including an appointed or elected member of a governmental board, from simultaneously hold 2 public offices that are incompatible. Current prescribes certain circumstances that result in offices being incompatible, unless the simultaneous holding of the particular offices is compelled or expressly authorized by law. This bill would repeal these provisions.

Position	Subject
Refer to Legis Comm	

[AB 1030](#) (Ting D) Energy storage systems.

Current Text: Amended: 3/30/2017 [Text](#)

Last Amend: 3/30/2017

Status: 4/26/2017-In committee: Set, first hearing. Failed passage.

Location: 3/6/2017-A. U. & E.

Summary: Would establish 4 energy policy goals of the state with respect to energy storage and would require the PUC, on behalf of electrical corporations, and require the governing board, on behalf of a local publicly owned electric utility, to undertake specified actions with respect to customer- and load-sited energy storage systems in order to achieve those energy policy goals, including a rebate program dedicated to energy storage that carves out a portion of funding for low-income customers and disadvantaged communities.

Position	Subject
Refer to Energy/Climate Workgroup	Climate Change/Energy Workgroup

[AB 1036](#) (McCarty D) Organic waste: composting.

Current Text: Introduced: 2/16/2017 [Text](#)

Status: 4/27/2017-Read second time. Ordered to Consent Calendar.

Location: 4/27/2017-A. CONSENT CALENDAR

Summary: Current law requires the California Environmental Protection Agency and the Department of Food and Agriculture, with the Department of Resources Recycling and Recovery, the State Water Resources Control Board, and the State Air Resources Board, to, among other things, assess the state's progress toward developing the organic waste processing and recycling infrastructure necessary to meet the state goals specified in certain state laws and documents. This bill would require those entities to assess the state's progress towards developing the organic waste processing and recycling infrastructure necessary to meet the state goals specified in an additional state law, as provided, and would make other changes in these provisions.

Position
Refer to
Energy/Climate
Workgroup

Subject
Climate
Change/Energy
Workgroup

AB 1089 (Mullin D) Local elective offices: contribution limitations.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 4/5/2017-In committee: Set, first hearing. Referred to suspense file.

Location: 3/22/2017-A. APPR.

Summary: Would, commencing January 1, 2019, prohibit a person from making to a candidate for local elective office, and would prohibit a candidate for local elective office from accepting from a person, a contribution totaling more than the amount set forth in the act for limitations on contributions to a candidate for elective state office.

Position
Watch

Subject
Local
Government

AB 1117 (Fong R) California Environmental Quality Act.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 4/17/2017-In committee: Set, first hearing. Hearing canceled at the request of author.

Location: 3/6/2017-A. NAT. RES.

Summary: Would prohibit a lead agency from being required to evaluate the aesthetic effects of a project subject to CEQA and would prohibit aesthetic effects from being considered significant effects on the environment, except in certain circumstances. This bill contains other related provisions and other existing laws.

Position
Watch

Subject
Local
Government

AB 1132 (Garcia, Cristina D) Nonvehicular air pollution: order for abatement.

Current Text: Amended: 4/24/2017 [Text](#)

Last Amend: 4/24/2017

Status: 4/25/2017-Re-referred to Com. on APPR.

Location: 4/24/2017-A. APPR.

Summary: Current law regulates the emission of air pollutants by stationary sources and authorizes the regional air quality management districts and air pollution control districts (air districts) to enforce those requirements. Current law authorizes the governing boards and the hearing boards of air districts to issue an order for abatement, after notice and a hearing, whenever they find a violation of those requirements. This bill would authorize the air pollution control officer, if he or she finds that any person is causing an imminent and substantial endangerment to the public health or welfare, or the environment, by violating those requirements, to issue an interim order for abatement pending a hearing before the hearing board of the air district.

Position
Watch

Subject

AB 1180 (Holden D) California tire fee: Stormwater Permit Compliance Fund.

Current Text: Amended: 4/19/2017 [Text](#)

Last Amend: 4/19/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 4. Noes 2.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Would increase the California tire fee by \$1.50. The bill would deposit the additional moneys in the Stormwater Permit Compliance Fund, which would be established by the bill, and would make the moneys available to the State Water Resources Control Board Division of Financial Assistance. The bill would continuously appropriate moneys in the fund for competitive grants for projects and programs for municipal storm sewer system permit compliance requirements that would prevent or remediate zinc pollutants caused by tires in the state and for an annual audit of the fund.

Position
Support

Subject

AB 1198 (Dahle R) Net energy metering.

Current Text: Amended: 4/17/2017 [Text](#)

Last Amend: 4/17/2017

Status: 4/19/2017-In committee: Set, first hearing. Hearing canceled at the request of author.

Location: 3/9/2017-A. U. & E.

Summary: Current law requires a large electrical corporation to offer this standard contract or tariff to an eligible customer-generator beginning July 1, 2017, or prior to that date if ordered to do so by the commission because it has reached the net energy metering program limit, as specified, established for the corporation. Current law requires the Public Utilities Commission to ensure that the standard contract or tariff made available to eligible customer-generators ensures that customer-sited renewable distributed generation continues to grow sustainably and include specific alternatives designed for growth among residential customers in disadvantaged communities. This bill would instead require that the specific alternatives be designed for growth among residential customers in lower income households, as defined.

Position	Subject
Spot Bill, Watch	
Close	

AB 1211 (Dahle R) State policy for water quality control.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 2/19/2017-From printer. May be heard in committee March 21.

Location: 2/17/2017-A. PRINT

Summary: Under current law, the Porter-Cologne Water Quality Control Act, the state policy for water quality control is required to consist of water quality principles and guidelines for long-range resource planning, water quality objectives, and other principles and guidelines deemed essential by the State Water Resources Control Board for water quality control. This bill would make technical, nonsubstantive changes to that provision.

Position	Subject
Spot Bill, Watch	
Close	

AB 1223 (Caballero D) Construction contract payments: Internet Web site posting.

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/27/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 7. Noes 0.) (April 26). Re-referred to Com. on APPR.

Location: 4/26/2017-A. APPR.

Summary: Current law imposes specified requirements on state and local agencies regarding payment of construction contracts. This bill would require, within 21 days of making a construction contract payment, a state or local agency that maintains an Internet Web site to post on its Internet Web site the project for which the payment was made, the name of the construction contractor or company paid, the date the payment was made, the payment application number or other identifying information, and the amount of the payment. The bill would exempt construction contracts valued below \$25,000 from these provisions.

Position	Subject
Disapprove	Local Government

AB 1248 (Gloria D) Public agencies: information.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 3/13/2017-Referred to Coms. on L. GOV. and P. & C.P.

Location: 3/13/2017-A. L. GOV.

Summary: Current law requires the governing body of a public agency, as defined, within 70 days after the commencement of its existence, to file with the Secretary of State a statement containing specified information about the public entity and its governing board and officers. This bill would require that the filing of the statement occur within 60 days after commencement of the existence of the public agency. The bill would make other nonsubstantive changes to these provisions.

Position	Subject
Spot Bill, Watch	
Close	

AB 1288 (Eggman D) Solid waste: charges.

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/27/2017-From committee: Amend, and do pass as amended and re-refer to Com. on APPR. (Ayes 7. Noes 1.) (April 24).

Location: 4/24/2017-A. APPR.

Summary: Current law requires methane emissions reduction goals to include specified targets for reducing organic waste in landfills. Current law requires the Department of Resources Recycling and Recovery, in consultation with the State Air Resources Board, to adopt regulations that achieve the specified targets for reducing organic waste in landfills. This bill would require the department, in

adopting those regulations, to conduct at least one public workshop to discuss funding strategies for new and expanded organic waste reduction infrastructure, including, but not limited to, existing public and private funding models and opportunities for new statewide funding sources.

Position

Watch

Subject

Climate
Change/Energy
Workgroup

AB 1333 (Dababneh D) Political Reform Act of 1974: local government agency notices.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 4/20/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 6. Noes 2.) (April 19). Re-referred to Com. on APPR.

Location: 4/20/2017-A. APPR.

Summary: Would require every local government agency that maintains an Internet Web site to prominently post on its Internet Web site, as specified, a notice of any upcoming election in which voters will vote on a tax measure or proposed bond issuance of the agency. The bill would also require every local government agency that publishes an electronic newsletter to include the notice in the electronic newsletter. By imposing new duties on local government agencies, the bill would impose a state-mandated local program.

Position

Disapprove

Subject

Local
Government

AB 1342 (Flora R) Greenhouse Gas Reduction Fund: healthy forest programs, organic waste projects, and recycling projects.

Current Text: Amended: 4/27/2017 [Text](#)

Last Amend: 4/27/2017

Status: 4/27/2017-Read second time and amended.

Location: 4/27/2017-A. APPR.

Summary: Would make moneys from the Greenhouse Gas Reduction Fund, upon appropriation, available to the Department of Forestry and Fire Protection for healthy forest programs that reduce greenhouse gas emissions caused by uncontrolled wildfires, as specified; to the Department of Resources Recycling and Recovery for instate organic waste recycling projects that reduce greenhouse gas emissions, as specified; and to the Department of Resources Recycling and Recovery for instate recycling projects that reduce greenhouse gas emissions and help achieve the state's policy goal that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020.

Position

Approve

Subject

Climate
Change/Energy
Workgroup

AB 1438 (Committee on Environmental Safety and Toxic Materials) State Water Resources Control Board: environmental laboratories: public water systems: certificates and permits: procedures.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 4/27/2017-Read second time. Ordered to Consent Calendar.

Location: 4/27/2017-A. CONSENT CALENDAR

Summary: The Environmental Laboratory Accreditation Act authorizes the State Water Resources Control Board to adopt regulations to establish reporting requirements, establish the accreditation procedures, recognize the accreditation of laboratories located outside California, and collect laboratory accreditation fees. Current law authorizes the state board to implement these provisions by entering and inspecting laboratories for these purposes, as specified. Current law makes it a crime to interfere with the state board with regard to those inspection provisions. This bill would revise and recast those provisions.

Position

Watch

Subject

AB 1529 (Thurmond D) Cross-connection or backflow prevention device inspectors: certification.

Current Text: Amended: 4/19/2017 [Text](#)

Last Amend: 4/19/2017

Status: 4/27/2017-From committee: Amend, and do pass as amended and re-refer to Com. on APPR. (Ayes 4. Noes 1.) (April 25).

Location: 4/25/2017-A. APPR.

Summary: Would require valid and current certifications for cross-connection inspection and testing or backflow prevention device inspection, testing, and maintenance that were determined by the State Department of Public Health to demonstrate competency before January 1, 2016, to be approved

California-specific certifications either until the State Water Resources Control Board promulgates regulations for cross-connection inspection and testing and backflow prevention device inspection, testing, and maintenance, or until January 1, 2020, whichever comes first.

Position	Subject
Disapprove	

[AB 1531](#) ([Berman D](#)) Public agency renewable energy self-generation program.

Current Text: Amended: 3/28/2017 [Text](#)

Last Amend: 3/28/2017

Status: 4/19/2017-In committee: Set, first hearing. Hearing canceled at the request of author.

Location: 4/17/2017-A. L. GOV.

Summary: Current law authorizes a local governmental entity, which, except for the individual campuses of the University of California, does not include the state or any of its agencies or departments, to receive a bill credit to a designated benefiting account for electricity exported by the local government to the electrical grid by a specific type of renewable generating facility and requires the Public Utilities Commission to adopt a rate tariff for the benefiting account. This program is known as the local government renewable energy self-generation program. his bill would change the reference to the program to the public agency renewable energy self-generation program and would make state agencies and departments eligible for the program.

Position	Subject
Support	

[AB 1552](#) ([Quirk-Silva D](#)) Electricity: distributed generation.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 3/16/2017-Referred to Com. on U. & E.

Location: 3/16/2017-A. U. & E.

Summary: Would, by July 1, 2018, to the extent authorized by federal law, require the state's 3 largest electrical corporations to stop assessing utility-imposed nonbypassable charges against customers using clean distributed generation resources, as defined, for electricity generated and consumed on-site and instead require those customers to pay all applicable fees based only on electricity purchased from the electrical corporation that is delivered over the electrical grid.

Position	Subject
Refer to Energy/Climate Workgroup	Climate Change/Energy Workgroup

[AB 1594](#) ([Bloom D](#)) Ocean protection: plastic pollution.

Current Text: Amended: 4/17/2017 [Text](#)

Last Amend: 4/17/2017

Status: 4/25/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 10. Noes 0.) (April 24). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Would require the Ocean Protection Council, on or before March 1, 2018, to compile existing data identifying the primary sources and types of ocean plastic pollution, as determined by an analysis of beach cleanup efforts in the state, including recommendations to be provided to the Legislature regarding legislative action or other strategies that may be implemented by the state to reduce plastic pollution on state beaches and in ocean waters.

Position	Subject
Watch	

[AB 1603](#) ([Ridley-Thomas D](#)) Meyers-Milias-Brown Act: local public agencies.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 4/20/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 5. Noes 2.) (April 19). Re-referred to Com. on APPR.

Location: 4/19/2017-A. APPR.

Summary: The MMBA rules and regulations may include exclusive recognition of employee organizations formally recognized pursuant to a vote of the employees of the agency or an appropriate unit thereof, subject to the right of an employee to represent himself or herself. This bill instead would specify that those rules and regulations may provide for exclusive recognition of employee organizations formally recognized pursuant to a vote of the employees of the agency or an appropriate unit thereof, subject to the employee's right to represent himself or herself, and provided that an otherwise appropriate unit of a public agency and one or more joint employers do not require the agency or joint employer's consent.

Position	Subject
Watch	

[AB 1605](#) (Caballero D) Maximum contaminant level: nitrate: replacement water.

Current Text: Amended: 4/27/2017 [Text](#)

Last Amend: 4/27/2017

Status: 4/27/2017-From committee chair, with author's amendments: Amend, and re-refer to Com. on JUD. Read second time and amended.

Location: 4/20/2017-A. JUD.

Summary: The California Safe Drinking Water Act, requires the state board to administer provisions relating to the regulation of drinking water to protect public health and vests with the state board specified responsibilities. This bill would prohibit a person or entity providing replacement water, as defined, to address drinking water that exceeds the maximum contaminant level for nitrate in groundwater from being deemed to have caused pollution or a nuisance, or from being liable for negligence or trespass, if certain conditions are met.

Position	Subject
Approve	

[AB 1628](#) (Grayson D) Public works: independent contractors.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 2/19/2017-From printer. May be heard in committee March 21.

Location: 2/17/2017-A. PRINT

Summary: Would declare the intent of the Legislature to enact legislation that would prohibit the use of independent contractors on public works projects.

Position	Subject
Spot Bill, Watch Close	

[AB 1654](#) (Rubio D) Water shortage: urban water management planning.

Current Text: Amended: 3/28/2017 [Text](#)

Last Amend: 3/28/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 15. Noes 0.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Would require each urban retail water supplier to report annually by June 15 to the Department of Water Resources the status of its water supplies for that year and whether the supplies will be adequate to meet projected customer demand, as prescribed. The bill would require the urban retail water supplier to implement the appropriate responses as described in its water shortage contingency analysis if the urban retail water supplier reports that all available water supplies for the applicable water year will not be adequate to meet projected customer demand.

Position	Subject
Watch	

[AB 1662](#) (Oberholte R) Net energy metering.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 2/19/2017-From printer. May be heard in committee March 21.

Location: 2/17/2017-A. PRINT

Summary: Under current law, generation eligible for net energy metering that had all local and state permits required to commence construction on or before December 31, 2002, and had completed construction on or before September 30, 2003, is entitled, regardless of any change in customer or ownership of the energy system, for the life of the installation, to the net energy metering terms in effect on the date the local and state permits were acquired. This bill would make a nonsubstantive change to that provision.

Position	Subject
Spot Bill, Watch Close	

[AB 1671](#) (Caballero D) Backflow protection and cross-connection controls: regulations.

Current Text: Amended: 4/19/2017 [Text](#)

Last Amend: 4/19/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 5. Noes 0.) (April 25). Re-referred to Com. on APPR.

Location: 4/25/2017-A. APPR.

Summary: Would, on or before January 1, 2020, would require the state board to update its backflow protection and cross-connection control regulations. This bill contains other existing laws.

Position	Subject
Approve	

[ACA 4](#) **(Aguiar-Curry D) Local government financing: affordable housing and public infrastructure: voter approval.**
Current Text: Introduced: 2/17/2017 [Text](#)
Status: 4/24/2017-Referred to Coms. on L. GOV. and APPR.
Location: 4/24/2017-A. L. GOV.
Summary: Local government financing: affordable housing and public infrastructure: voter approval.

Position	Subject
Support, if amended, work with author	

[SB 5](#) **(De León D) California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018.**

Current Text: Amended: 3/28/2017 [Text](#)
Last Amend: 3/28/2017
Status: 4/20/2017-April 24 set for second hearing canceled at the request of author.
Location: 3/28/2017-S. APPR.
Summary: Would enact the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, which, if approved by the voters, would authorize the issuance of bonds in an amount of \$3,000,000,000 pursuant to the State General Obligation Bond Law to finance a drought, water, parks, climate, coastal protection, and outdoor access for all program.

Position	Subject
Work w/author	

[SB 80](#) **(Wieckowski D) California Environmental Quality Act: notices.**

Current Text: Amended: 2/14/2017 [Text](#)
Last Amend: 2/14/2017
Status: 4/24/2017-Read third time. Passed. (Ayes 27. Noes 7.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk.
Location: 4/24/2017-A. DESK
Summary: The California Environmental Quality Act requires the lead agency to mail certain notices to persons who have filed a written request for notices. The act provides that if the agencies offer to provide the notices by email, upon filing a written request for notices, a person may request that the notices be provided to him or her by email. This bill would require the lead agency to post those notices on the agency's Internet Web site. The bill would require the agency to offer to provide those notices by email. Because this bill would increase the level of service provided by a local agency, this bill would impose a state-mandated local program.

Position	Subject
Watch	Local Government

[SB 100](#) **(Committee on Budget and Fiscal Review) Budget Act of 2017.**

Current Text: Introduced: 1/11/2017 [Text](#)
Status: 4/17/2017-Withdrawn from committee. Re-referred to Com. on RLS.
Location: 4/17/2017-S. RLS.
Summary: This bill would express the intent of the Legislature to enact statutory changes relating to the Budget Act of 2017.

Position	Subject
Refer to Legis Comm	

[SB 178](#) **(Wieckowski D) Civil law: nuisance.**

Current Text: Introduced: 1/24/2017 [Text](#)
Status: 2/2/2017-Referred to Com. on RLS.
Location: 1/24/2017-S. RLS.
Summary: Current law defines, among other things, anything that is an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, as a nuisance. This bill would also define anything that is an obstruction to the free use of property, so as to interfere with the quiet enjoyment of life or property, as a nuisance.

Position	Subject
Spot Bill, Watch Close	

[SB 224](#) **(Jackson D) California Environmental Quality Act: baseline conditions.**

Current Text: Amended: 4/5/2017 [Text](#)

Last Amend: 4/5/2017

Status: 4/21/2017-Set for hearing May 1.

Location: 4/19/2017-S. APPR.

Summary: Would require the Office of Planning and Research, on or after January 1, 2018, at the time of the next review of the guidelines, to prepare, develop, and transmit to the secretary proposed changes or amendments to determine the baseline physical conditions by which a lead agency determines whether a project has a significant effect on the environment. The bill would require the office, in developing the recommendations to limit the consideration of modifications to the environment at the project site cause by certain actions. The bill would require the secretary to certify and adopt the recommended proposed changes or amendments.

Position

Oppose, Work
with Others

Subject

Local
Government

[SB 229](#) ([Wieckowski D](#)) Accessory dwelling units.

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/21/2017-Set for hearing May 1.

Location: 4/18/2017-S. APPR.

Summary: The Planning and Zoning Law authorizes the legislative body of a city or county to regulate the intensity of land use, and also authorizes a local agency to provide by ordinance for the creation of accessory dwelling units in single-family and multifamily residential zones, as specified. Current law requires the ordinance to designate areas within the jurisdiction of the local agency where these units may be permitted and impose specified standards on these units. This bill would authorize the ordinance to include more permissive maximums of increased floor area and total floor space.

Position

Work w/author

Subject

Notes 1: CASA SLC Subcommittee:

Carl Nelson

Kent Alm

Claire Collins

Adam Link

Mike Dillon

Jessica Gauger

[SB 231](#) ([Hertzberg D](#)) Local government: fees and charges.

Current Text: Amended: 4/19/2017 [Text](#)

Last Amend: 4/19/2017

Status: 4/27/2017-Read third time. Passed. (Ayes 23. Noes 10.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk.

Location: 4/27/2017-A. DESK

Summary: Articles XIII C and XIII D of the California Constitution generally require that assessments, fees, and charges be submitted to property owners for approval or rejection after the provision of written notice and the holding of a public hearing. Current law, the Proposition 218 Omnibus Implementation Act, prescribes specific procedures and parameters for local jurisdictions to comply with Articles XIII C and XIII D of the California Constitution and defines terms for these purposes. This bill would define the term "sewer" for these purposes. The bill would also make findings and declarations relating to the definition of the term "sewer" for these purposes.

Position

Work w/author

Subject

[SB 258](#) ([Lara D](#)) Cleaning Product Right to Know Act of 2017.

Current Text: Amended: 3/20/2017 [Text](#)

Last Amend: 3/20/2017

Status: 4/26/2017-From committee: Do pass and re-refer to Com. on APPR. (Ayes 4. Noes 1.) (April 26). Re-referred to Com. on APPR.

Location: 4/26/2017-S. APPR.

Summary: Would require a manufacturer of a cleaning product, as defined, that is manufactured or sold in the state on or after January 1, 2018, to disclose ingredients or contaminants of concern contained in and health impact information related to the cleaning product on the product label, post the cleaning product ingredient information on the manufacturer's Internet Web site, and include specified information on the cleaning product's label concerning ingredients or contaminants of concern contained in the cleaning product, including Internet Web sites where more information may be found.

Position

Subject

SB 262 (Wieckowski D) Climate change: climate adaptation: advisory council.

Current Text: Introduced: 2/8/2017 [Text](#)

Status: 4/20/2017-Read third time. Passed. (Ayes 36. Noes 0.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk.

Location: 4/20/2017-A. DESK

Summary: Current law requires the Office of Planning and Research to establish an advisory council, comprised of members for a range of disciplines, to support the office's goals to facilitate coordination among state, regional, and local agency efforts to adapt to the impacts of climate change. This bill would specify that the members on the advisory council serve staggered terms of 4 years. The bill would require the members of the advisory council to select a chairperson from their members.

Position

Watch

Subject

Climate
Change/Energy
Workgroup

SB 417 (Berryhill R) State Water Resources Control Board.

Current Text: Introduced: 2/15/2017 [Text](#)

Status: 2/23/2017-Referred to Com. on RLS.

Location: 2/15/2017-S. RLS.

Summary: Current law declares that to provide for the orderly and efficient administration of the water resources in the state, it is necessary to establish the State Water Resources Control Board to exercise the adjudicatory and regulatory functions of the state in the field of water resources. Existing law declares the intent of the Legislature to combine the water rights, water quality, and drinking water functions of the state government to provide for coordinated consideration of water rights, water quality, and safe and reliable drinking water. This bill would make nonsubstantive changes to these declarations.

Position

Spot Bill, Watch
Close

Subject

SB 423 (Cannella R) Indemnity: design professionals.

Current Text: Amended: 3/21/2017 [Text](#)

Last Amend: 3/21/2017

Status: 3/29/2017-Re-referred to Com. on JUD.

Location: 3/29/2017-S. JUD.

Summary: Current law provides, with respect to contracts and amendments to contracts entered into on or after January 1, 2011, with a public agency for design professional services, that all provisions, clauses, covenants, and agreements contained in, collateral to, or affecting these contracts or amendments to contracts that purport to require the design professional to defend the public agency under an indemnity agreement, including the duty and the cost to defend, are unenforceable, except for claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the design professional. Current law provides that all contracts and all solicitation documents between a public agency and a design professional are deemed to incorporate these provisions by reference. This bill would make these provisions applicable to all contracts for design professional services entered into by any person or public or private entity on or after January 1, 2018.

Position

Watch Close,
Work with other
organizations

Subject

Local
Government

SB 431 (Bates R) Planning and zoning: building codes: accessory dwelling units.

Current Text: Amended: 3/20/2017 [Text](#)

Last Amend: 3/20/2017

Status: 3/29/2017-Re-referred to Coms. on T. & H., GOV. & F., and RLS.

Location: 3/29/2017-S. T. & H.

Summary: Would, if a local agency makes its provisions applicable by ordinance or resolution, authorize a local building inspector for 5 years following adoption of the ordinance or resolution to waive some or all requirements, with specified exceptions for certain health and safety requirements, of an applicable building code with respect to an accessory dwelling unit constructed prior to January 1, 2008, for the purpose of issuing a building permit for that accessory dwelling unit. The bill would specify that an accessory dwelling unit issued a permit pursuant to these provisions would not count toward the local agency's allocation of the regional housing need.

Position

Watch

Subject

SB 448 (Wieckowski D) Local government: organization: districts.

Current Text: Amended: 4/18/2017 [Text](#)

Last Amend: 4/18/2017

Status: 4/26/2017-Action From GOV. & F.: Do pass as amended.To APPR..

Location: 4/26/2017-S. APPR.

Summary: Would require a local agency formation commission to dissolve any special district that is an inactive district. The bill would additionally require a local agency formation commission to initiate proceedings for the dissolution of idle districts, as specified. This bill would define the terms "inactive district" and "idle district" for these purposes. By increasing the duties of local officials, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.

Position

Watch Close,
Work with other
organizations

Subject

Local
Government

SB 450 (Hertzberg D) Public bodies: bonds: public notice.

Current Text: Amended: 3/22/2017 [Text](#)

Last Amend: 3/22/2017

Status: 4/21/2017-Set for hearing May 1.

Location: 4/19/2017-S. APPR.

Summary: Current law authorizes the governing body of a public body to authorize the issuance of bonds pursuant to a resolution, indenture, agreement, or other instrument providing for the issuance of bonds. This bill, prior to authorization of the issuance of certain bonds, would require the governing body of a public body to obtain and disclose specified information regarding the bonds in a meeting open to the public.

Position

Watch

Subject

Local
Government

SB 496 (Cannella R) Indemnity: design professionals.

Current Text: Enrolled: 4/25/2017 [Text](#)

Last Amend: 4/5/2017

Status: 4/26/2017-Enrolled and presented to the Governor at 9:45 a.m.

Location: 4/26/2017-S. ENROLLED

Summary: Current law provides, with respect to contracts and amendments to contracts entered into on or after January 1, 2011, with a public agency, as defined, for design professional services, that all provisions, clauses, covenants, and agreements contained in, collateral to, or affecting these contracts or amendments to contracts that purport to require the design professional to defend the public agency under an indemnity agreement, including the duty and the cost to defend, are unenforceable, except for claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the design professional. This bill would instead make these provisions applicable to all contracts for design professional services entered into on or after January 1, 2018.

Position

Disapprove

Subject

Local
Government

SB 584 (De León D) California Renewables Portfolio Standard Program.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 3/2/2017-Referred to Com. on RLS.

Location: 2/17/2017-S. RLS.

Summary: The California Renewables Portfolio Standard Program additionally requires each local publicly owned electric utility, as defined, to procure a minimum quantity of electricity products from eligible renewable energy resources to achieve the procurement requirements established by the program. The Legislature has separately declared that its intent in implementing the program is to attain, among other targets for sale of eligible renewable resources, the target of 50% of total retail sales of electricity by December 31, 2030. This bill would revise those legislative findings and declarations to state that the goal of the program is to achieve that 50% target by December 31, 2025, and for all electricity sold at retail to be generated by eligible renewable energy resources by December 31, 2045.

Position

Watch

Subject

SB 589 (Hernandez D) Municipal separate storm sewer systems: financial capability analysis: pilot project.

Current Text: Amended: 4/26/2017 [Text](#)

Last Amend: 4/26/2017

Status: 4/26/2017-Read second time and amended. Re-referred to Com. on APPR.

Location: 4/26/2017-S. APPR.

Summary: Current law requires the State Water Resources Control Board or the regional boards to issue waste discharge requirements that apply and ensure compliance with the federal Clean Water Act and any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance. This bill would require the state board, in conjunction with an educational institution, to establish financial capability assessment guidelines for municipal separate storm sewer system permittees by an unspecified date.

Position

Approve

Subject

[SB 602](#)

(Allen D) Pesticides: neonicotinoids: labeling.

Current Text: Amended: 4/6/2017 [Text](#)

Last Amend: 4/6/2017

Status: 4/17/2017-Read second time. Ordered to third reading. Published April 6 at 9 p.m.

Location: 4/17/2017-S. THIRD READING

Summary: Would, on and after July 1, 2018, require labeling, as specified, of commercially available seeds and plants sold at retail establishments, excluding noxious weed seeds and plants, that have been treated with a neonicotinoid pesticide. The bill would specify that a violation of this requirement is not a crime but would constitute an unfair and unlawful business act or practice.

Position

Watch

Subject

[SB 623](#)

(Monning D) Safe and Affordable Drinking Water Fund.

Current Text: Amended: 4/26/2017 [Text](#)

Last Amend: 4/26/2017

Status: 4/26/2017-Read second time and amended. Re-referred to Com. on APPR.

Location: 4/26/2017-S. APPR.

Summary: Would establish the Safe and Affordable Drinking Water Fund in the State Treasury and would provide that moneys in the fund are available, upon appropriation, to the State Water Resources Control Board. The bill would require the board to administer the fund and authorize the board to provide for the deposit of federal contributions and voluntary contributions, gifts, grants, or bequests. The bill would require the board to expend moneys in the fund for grants, loans, contracts, or services to assist those without access to safe and affordable drinking water consistent with a fund implementation plan adopted annually by the board, as prescribed.

Position

Watch Close

Subject

[SB 633](#)

(Portantino D) Water quality objectives: stormwater.

Current Text: Amended: 4/26/2017 [Text](#)

Last Amend: 4/26/2017

Status: 4/26/2017-Read second time and amended. Re-referred to Com. on APPR.

Location: 4/26/2017-S. APPR.

Summary: Would require a regional board preparing a water quality control plan for a region having a population in excess of 10 million residents to additionally consider opportunities to convey stormwater to a regional site within the watershed in which the stormwater originated for capture and infiltration and to consider the opportunity for stormwater capture when determining past and probable future beneficial uses of water, as specified. This bill contains other related provisions.

Position

Watch

Subject

[SB 657](#)

(Bates R) California Public Records Act: reverse public records actions.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 3/9/2017-Referred to Com. on JUD.

Location: 3/9/2017-S. JUD.

Summary: Would require a court in a reverse public records action to apply the provisions of the California Public Records Act as if the action had been initiated by a person requesting disclosure of a public record. This bill would require the requestor, as defined, to be named as a real party of interest in a reverse public records action, and would require a court to allow the requestor, at his or her request, to be heard on the merits of the reverse public records action.

Position

Oppose, Work

Subject

with Others

SB 659 (Stern D) Alternative energy financing.

Current Text: Introduced: 2/17/2017 [Text](#)
Status: 3/9/2017-Referred to Com. on RLS.
Location: 2/17/2017-S. RLS.

Summary: The California Alternative Energy and Advanced Transportation Financing Authority Act authorizes the authority, until January 1, 2021, to provide financial assistance in the form of a sales and use tax exclusion for certain projects, with the purpose of promoting California-based manufacturing, California-based jobs, advanced manufacturing, the reduction of greenhouse gases, or the reduction in air and water pollution or energy consumption. The act prohibits the sales and use tax exclusions from exceeding \$100,000,000 for each calendar year. This bill would make nonsubstantive changes to these provisions and would delete an obsolete provision.

Position	Subject
Spot Bill, Watch	
Close	

SB 686 (Wilk R) Public contracts: claim resolution.

Current Text: Introduced: 2/17/2017 [Text](#)
Status: 3/9/2017-Referred to Com. on JUD.
Location: 3/9/2017-S. JUD.

Summary: Current law establishes, for contracts entered into on or after January 1, 2017, a claim resolution process applicable to any claim by a contractor in connection with a public works project against a public entity. Current law defines a claim as a separate demand by the contractor for one or more of the following: a time extension for relief from damages or penalties for delay, payment of money or damages arising from work done pursuant to the contract for a public work, or payment of an amount disputed by the public entity, as specified. In the case in which a claimant disputes the public entity's response or the public entity fails to respond, current law requires a public entity to schedule a meet and confer conference for the settlement of the dispute. This bill would require the public entity to, instead, conduct the meet and confer conference within that some period.

Position	Subject
Spot Bill, Watch	Local
Close	Government

SB 705 (Allen D) Solid waste: expanded polystyrene food service containers.

Current Text: Amended: 4/26/2017 [Text](#)
Last Amend: 4/26/2017
Status: 4/26/2017-Read second time and amended. Re-referred to Com. on APPR.
Location: 4/26/2017-S. APPR.

Summary: Would enact the Ocean Pollution Reduction Act of 2017, which would prohibit a food provider, on and after January 1, 2020, from dispensing prepared food to a customer in an expanded polystyrene food service container. The bill would authorize a city, a county, a city and county, or the state to impose civil liability on a person or entity that knowingly violates that prohibition, or reasonably should have known that it was violating that prohibition, in the amount of \$1,000 per day for the first violation, \$2,000 per day for the second violation, and \$5,000 per day for the third and subsequent violations.

Position	Subject
Watch	

SB 740 (Wiener D) Onsite treated water.

Current Text: Amended: 4/26/2017 [Text](#)
Last Amend: 4/26/2017
Status: 4/26/2017-Read second time and amended. Re-referred to Com. on APPR.
Location: 4/26/2017-S. APPR.

Summary: Would, on or before December 1, 2018, require the State Water Resources Control Board, in consultation with other state agencies, to adopt regulations, consistent with federal and state law in effect on January 1, 2018, to provide comprehensive risk-based standards for local jurisdictions permitting programs for onsite recycling of water in multifamily residential, commercial, and mixed-use buildings for nonpotable use. The bill would require the regulations to address specified issues and practices relating to the management, monitoring, and treatment of recycled water for nonpotable use.

Position	Subject
Support	

Notes 1: CASA SLC Subcommittee:
Carolyn Ginno
Sharon Green
Jessica Gauger

SB 745 (Stern D) California Global Warming Solutions Act of 2006.

Current Text: Introduced: 2/17/2017 [Text](#)

Status: 3/9/2017-Referred to Com. on RLS.

Location: 2/17/2017-S. RLS.

Summary: The California Global Warming Solutions Act of 2006 requires the State Air Resources Board to consult with other states, the federal government, and other nations to identify the most effective strategies and methods to reduce greenhouse gases, manage greenhouse gas control programs, and facilitate the development of integrated and cost-effective regional, national, and international greenhouse gas reduction programs. This bill would make technical, nonsubstantive changes to these provisions.

Position

Spot Bill, Watch
Close

Subject

SB 778 (Hertzberg D) Water systems: consolidations: administrative and managerial services.

Current Text: Amended: 4/26/2017 [Text](#)

Last Amend: 4/26/2017

Status: 4/26/2017-Read second time and amended. Re-referred to Com. on APPR.

Location: 4/26/2017-S. APPR.

Summary: Would require, on or before March 1, 2018, the State Water Resources Control Board to track and publish on its Internet Web site an analysis of all voluntary and ordered consolidations of water systems, including publishing information on the resulting outcomes of the consolidations and whether the consolidations have succeeded or failed in providing an adequate supply of safe drinking water to the communities served by the consolidated water systems.

Position

Watch Close

Subject

SCA 4 (Hertzberg D) Water conservation.

Current Text: Introduced: 2/2/2017 [Text](#)

Status: 2/16/2017-Referred to Com. on RLS.

Location: 2/2/2017-S. RLS.

Summary: The California Constitution requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable and that the waste or unreasonable use or unreasonable method of use of water be prevented. This measure would declare the intent of the Legislature to amend the California Constitution to provide a program that would ensure that affordable water is available to all Californians and to ensure that water conservation is given a permanent role in California's future.

Position

Work w/author

Subject

Total Measures: 88

Total Tracking Forms: 88

CASA FEDERAL LEGISLATIVE COMMITTEE
POLICY UPDATE
March 17, 2017

WATER QUALITY							
Bill No.	Title	Sponsor	Summary	Status	Cosponsors	Position	Comments
H.R.502	To permanently reauthorize the Land and Water Conservation Fund.	Grace Napolitano (D-CA)	Amends the Land and Water Conservation Fund Act of 1965 to make permanent the authorization for the Land and Water Conservation Fund. No less than 1.5% of the annual authorized funding amount or \$10 million, whichever is greater, shall be used for projects that secure recreational public access to existing federal public land for hunting, fishing, and other recreational purposes.	Introduced 1/12/17 Referred to the House Subcommittee on Water, Power, and Oceans 2/10/17	121 Cosponsors		
H.R.1071	Assistance, Quality, and Affordability Act of 2017	Paul Tonko (D-NY)	Amends the Safe Drinking Water Act to increase assistance for States, water systems, and disadvantaged communities; to encourage good financial and environmental management of water systems; to strengthen the Environmental Protection Agency's ability to enforce the requirements of the Act; and for other purposes.	Introduced 2/13/17 Referred to the House Committee on Energy and Commerce 2/15/17	16 Cosponsors		
H.R.1068	Safe Drinking Water Act Amendments of 2017	Frank Pallone (D-NJ)	To enable needed drinking water standards, reduce lead in drinking water, plan for and address threats from climate change, terrorism, and source water contamination, invest in drinking water infrastructure, increase compliance with drinking water standards, foster greater community right to know about drinking water quality, and promote technological solutions for drinking water challenges.	Introduced in House 2/15/17, Referred to Subcommittee on Environment 2/17/17	9 Cosponsors		
S. 519	A bill to amend the Safe Water Drinking Act to require the Administrator of the Environmental Protection Agency to establish maximum contaminant levels for certain contaminants, and for other purposes.	Kirsten Gillibrand [D-NY]	Amends the Safe Water Drinking Act to require the Administrator of the Environmental Protection Agency to establish maximum contaminant levels for certain contaminants, and for other purposes.	Introduced in 3/2/17 Referred to Committee on Environment and Public Works - 3/2/17	1 Cosponsor		
H.R. 1663	Water Resources Research Amendments Act	Robert Wittman (R-VA)	Amends the Water Resources Research Act of 1984 to reauthorize grants for and require applied water supply research regarding the water resources research and technology institutes established under that Act.	Introduced 3/21/17 Referred to Committee on Natural Resources - 3/21/17	2 Cosponsors		

CASA FEDERAL LEGISLATIVE COMMITTEE
POLICY UPDATE
March 17, 2017

WATER INFRASTRUCTURE							
Bill No.	Title	Sponsor	Summary	Status	Cosponsors	Position	Comments
H.R. 1579	Secure and Resilient Water Systems Act	Scott H. Peters (D-CA)	To require drinking water systems to assess and address their vulnerabilities to climate change, source water degradation, and intentional acts to ensure security and resiliency.	Introduced in House 3/16/17, referred to Committee on Energy and Commerce	2 Cosponsors		
H.R. 1269	Sacramento Valley Water Storage and Restoration Act	Doug LaMalfa (R-CA)	To direct the Secretary of the Interior to take actions to support non-Federal investments in water infrastructure improvements in the Sacramento Valley, and for other purposes.	Introduced 3/1/17 Referred to Subcommittee on Water, Power and Oceans - 3/10/17	1 Cosponsor		
H.R. 1647	Water Infrastructure Trust Fund Act of 2017	Earl Blumenauer (D-OR)	To establish a Water Infrastructure Trust Fund, and for other purposes	Introduced 3/21/2017 Referred to Subcommittee on Water Resources and Environment	1 Cosponsor		
H.R. 434	New WATER Act	Jeff Denham (R-CA)	Authorizes the Department of the Interior, for 15 years after this bill's enactment, to provide financial assistance, such as secured loans or loan guarantees, to entities that contract under federal reclamation law to carry out water projects within the 17 western states served by the Bureau of Reclamation, other states where the Bureau is authorized to provide project assistance, Alaska, and Hawaii.	Introduced 1/11/17 Referred to Subcommittee on Water, Power, and Oceans - 2/7/17	5 Cosponsors		
H.R. 448	Water Conservation Rebate Tax Parity Act	Jared Huffman (D-CA)	Amends the Internal Revenue Code to expand the tax exclusion for energy conservation subsidies provided by public utilities to exclude from gross income subsidies provided: (1) by a public utility to a customer, or by a state or local government to a resident of such state or locality, for the purchase or installation of any water conservation or efficiency measure; and (2) by a storm water management provider to a customer, or by a state or local government to a resident of such state or locality, for the purchase or installation of any storm water management measure.	Introduced 1/11/2017 Referred to Committee on Ways and Means - 1/11/17	27 Cosponsors		

CASA FEDERAL LEGISLATIVE COMMITTEE
POLICY UPDATE
March 17, 2017

WATER INFRASTRUCTURE CONTINUED							
Bill No.	Title	Sponsor	Summary	Status	Cosponsors	Position	Comments
H.R. 1673	To establish a trust fund to provide for adequate funding for water and sewer infrastructure, and for other purposes	John Conyers (D-MI)	To establish a trust fund to provide for adequate funding for water and sewer infrastructure, and for other purposes.	Introduced 3/22/2017 On 3/22/17 Referred to House Committees: T & I, Energy and Commerce, Ways and Means, and Agriculture On 3/23/17 referred to Subcommittee on Water Resources and Environment	22 Cosponsors		
S. 692	A bill to provide for integrated plan permits, to establish an Office of the Municipal Ombudsman, to promote green infrastructure, and to require the revision of financial capability guidance.	Deb Fischer (R-NE)	A bill to provide for integrated plan permits, to establish an Office of the Municipal Ombudsman, to promote green infrastructure, and to require the revision of financial capability guidance.	Introduced 3/21/17 Referred to Committee on Environment and Public Works - 3/21/17	7 Cosponsors		
H.R. 448	Water Conservation Rebate Tax Parity Act	Jared Huffman (D-CA)	Amends the Internal Revenue Code to expand the tax exclusion for energy conservation subsidies provided by public utilities to exclude from gross income subsidies provided: (1) by a public utility to a customer, or by a state or local government to a resident of such state or locality, for the purchase or installation of any water conservation or efficiency measure; and (2) by a storm water management provider to a customer, or by a state or local government to a resident of such state or locality, for the purchase or installation of any storm water management measure.	Introduced 1/11/2017 Referred to Committee on Ways and Means - 1/11/17	27 Cosponsors		

CASA FEDERAL LEGISLATIVE COMMITTEE
POLICY UPDATE
March 17, 2017

REGULATORY REFORM / LOCAL GOVERNMENT							
Bill No.	Title	Sponsor	Summary	Status	Cosponsors	Position	Comments
H.R.998	SCRUB Act	Jason Smith (R-MO)	SCRUB would institutionalize a process to identify those regulations that are eligible to be repealed. Under the measure, a bipartisan review commission would examine rules fifteen years or older that are determined to be not necessary and should be repealed immediately, or given to the appropriate agency for the purposes of prioritizing the rule for repeal.	Passed House 3/1/17 240-185, Received in Senate - referred to Committee on Homeland Security and Governmental Affairs	3 Cosponsors		
H.R. 23	Gaining Responsibility on Water Act of 2017	David G. Valadao (R-CA)	To provide drought relief in the State of California, and for other purposes.	Introduced 1/3/2017 Referred to Subcommittee on Water, Power and Oceans - 2-10-2017	13 Cosponsors		
S. 677	A bill to authorize the Secretary of the Interior to coordinate Federal and State permitting processes related to the construction of new surface water storage projects on lands under the jurisdiction of the Secretary of the Interior and the Secretary of Agriculture and to designate the Bureau of Reclamation as the lead agency for permit processing, and for other purposes	John Barrasso [R-WY]	Authorizes the Secretary of the Interior to coordinate Federal and State permitting processes related to the construction of new surface water storage projects on lands under the jurisdiction of the Secretary of the Interior and the Secretary of Agriculture and to designate the Bureau of Reclamation as the lead agency for permit processing, and for other purposes.	Introduced 3/21/17 Referred to Committee on Energy and Natural Resources - 3/21/17	5 Cosponsor		
H.R. 1654	Water Supply Permitting Coordination Act	Tom McClintock (R-CA)	To authorize the Secretary of the Interior to coordinate Federal and permitting processes related to the construction of new surface water storage projects on lands under the jurisdiction of the Secretary of the Interior and the Secretary of Agriculture and to designate the Bureau of Reclamation as the lead agency for permit processing, and for other purposes.	Introduced 3/21/17 Referred to Committee on Natural Resources	8 Cosponsors		
H.R. 875	Bureau of Reclamation Water Project Streamlining Act	Dan Newhouse (R-WA)	Bill sets forth provisions governing feasibility studies for water projects initiated by the Department of the Interior under the Reclamation Act of 1902 (project studies).	Introduced 2/6/17 Referred to Subcommittee on Water, Power and Oceans - 2/17/17	0 Cosponsors		



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: May 2, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Sami E. Ghossain, Manager of Technical Services

SUBJECT: Agenda Item No. 13 - Meeting of May 8, 2017
Information Only: **Status of Priority 1 Capital Improvement Program Projects**

Recommendation

Information only.

Background

In June 2016, the Board approved the Capital Improvement Program (CIP) budget for FY17 in the amount of \$14.67 million for the design and construction of 24 CIP projects.

These 24 projects are further ranked as Priority 1 and 2 projects based on a criteria prepared by staff and approved by the Executive Team. A copy of the criteria used to prioritize the projects is attached for your reference.

The status of the Priority 1 CIP projects is reviewed by the Executive Team at the end of each quarter and a copy of the status report is attached for the Board's review. For FY17, 16 projects are ranked as Priority 1 projects and the remaining eight (8) are ranked as Priority 2 projects.

Also attached is a tabular summary of the number and nature of the ongoing CIP projects at the District during FY 17.

PRE/SEG:ks

Attachments: Priority 1 CIP Projects for FY 17 - Status Report
Summary of CIP Projects for FY 17
Priority 1 CIP Project Criteria
Priority 2 & 3 CIP Project Criteria

Priority 1 Projects for FY 17 – Status Report

	Project	Planned Milestones	Status after 1st Quarter	Status after 2nd Quarter	Status after 3rd Quarter	Status after 4th Quarter
1	Aeration System Rehab (High Speed Blower)	Substantial Completion of Project construction by December 2016.	Project was substantially completed on August 12, 2016.	Board accepted Project on December 12, 2016.	Completed.	
2	Alvarado-Niles Rd. Sewer Rehab	Substantial Completion of Project construction by December 2016.	CIPP work is complete except for one cast iron lining repair location. Contractor has removed all bypass piping and completed final paving of all intersections.	Project was substantially completed on October 11, 2016.	Completed.	
3	Cogen Engine Rebuild	Install replacement Cogen No. 1 by September 2016.	Replacement engine block was installed on September 12, 2016.	Old Cogen was returned to manufacturer for analysis.	Analysis was reviewed and responded to. Awaiting manufacturer response.	
4	Diffuser Replacement	Substantial Completion of Project construction by October 2016.	Project was substantially completed on July 11, 2016.	Board accepted the Project on July 25, 2016.	Completed.	
5	Digester No. 3 Insp and Rehab	<ul style="list-style-type: none"> a) 50% design by May 2017. b) Complete condition assessment by June 2017. c) 100% design by July 2017. 	CIP met with TPO and FMC staff to discuss the project scope of work. CIP will estimate the construction cost for requested scope before deciding on final project elements.	Carollo Engineers was selected as design consultant through an RFP process. Began negotiation of design task order.	<p>50% design review was completed in March 2017.</p> <p>Process of taking Digester No. 3 offline for cleaning has begun.</p>	

	Project	Planned Milestones	Status after 1st Quarter	Status after 2nd Quarter	Status after 3rd Quarter	Status after 4th Quarter
6	Equalization Storage at Alvarado	Pending final location of the storage basin, submit a wetlands and waters delineation permit application to the Army Corps of Engineers within 3 months of finalizing the final location of the storage basin.	Final location of the storage basin has not been determined yet.	Meetings were held with ACFCD, RWQCB and ACWD to discuss the merits of utilizing ACFCD property for effluent storage basin.	RMC to evaluate alternatives for the plant's peak wet weather final effluent, as part of the Plant Master Plan study.	
7	Force Main corrosion Repairs – West	<ul style="list-style-type: none"> a) Execute Agreement and task order by November 2016. b) 100% design by May 2017. c) Const. award by August 2017. 	Selected West Yost as the design consultant for the project. Met with West Yost to review project scope and begin task order negotiations.	Executed Agreement and task order and completed pre-design services.	75% design review was completed in February 2017. 90% design submittal was received in March 2017.	
8	Fremont & PP LS Internal Lift Pumps	<ul style="list-style-type: none"> a) Install new screw pumps at both lift stations and start up by November 2016. b) Substantial Completion construction by February 2017. 	New screw pumps were installed at Fremont LS in September. Functional and operational tests of pumps at Fremont LS are scheduled in October 2016.	New pump motors at both lift stations were undersized. Contractor placed order for new motors and gear drives. Functional and operational tests will occur in the third quarter.	<p>Pump installation and start up at both lift stations was completed in March 2017.</p> <p>Awaiting installation of canopies at both lift stations.</p>	

	Project	Planned Milestones	Status after 1st Quarter	Status after 2nd Quarter	Status after 3rd Quarter	Status after 4th Quarter
9	Hypochlorite Tanks and PVC piping replacement	<ul style="list-style-type: none"> a) Issue NTP by September 2016. b) Deliver new chemical tanks and metering pumps for the Odor Control Building by April 2017. c) Replace at least two tanks at the Odor Control Building by July 2017. d) Substantial Completion by January 2018. 	Issued NTP on August 18, 2016 and conducted the preconstruction conference with the contractor on August 23, 2016. Contractor began submittals process.	Completed the trench excavation for sodium hypochlorite pipeline replacement between the Maintenance Shop Building and the Water Champ.	New metering pumps for the Odor Control Building were delivered in March 2017. New chemical tanks are expected in May.	
10	MCC and PLC Replacement Phase 3	<ul style="list-style-type: none"> a) Complete PLC 8 (West Aeration Blower Building) commissioning by January 2017. b) Substantial Completion by March 2017. 	Contractor completed conduit installation in advance of the PLC 8 equipment cutover scheduled on October 10, 2016.	Project substantially completed on December 9, 2016.	Project was accepted by the Board on February 13, 2017.	
11	Newark Backyard Sewer Relocation	Phase 3 - Substantial Completion of Project construction by December 2016.	Completed new main installation, lateral installation, and final paving. Substantial completion should be in October 2016.	Project substantially completed on October 7, 2016.	Project was accepted by the Board on March 13, 2017.	
12	Newark Pump Station Mod Valve and Boost Line Mods	<ul style="list-style-type: none"> a) 50% design by February 2017. b) 100% design by April 2017. c) Bid Opening and Award by July 2017. 	Evaluating the addition of the Newark PS wet well fan replacement. Began design fee negotiations with Carollo.	Executed Agreement and task order for design on December 2 nd . Design kickoff meeting was held on December 21, 2016.	90% design review was completed in March 2017.	

	Project	Planned Milestones	Status after 1st Quarter	Status after 2nd Quarter	Status after 3rd Quarter	Status after 4th Quarter
13	Pine St. Easement	Substantial Completion of Project construction by December 2016.	Completed all field work and punch list items. Project substantial completion should be issued in October 2016.	Board accepted the Project on December 12, 2016.	Completed.	
14	Plant Facilities Improvements	a) Complete the 60-inch diameter primary effluent pipeline lining repair by January 2017. b) Project Substantial Completion by April 2017.	Due to changed site condition, the repair of the 60" primary effluent pipeline lining will be modified. Repair is scheduled to begin on October 4, 2016.	Repair of the 60" primary effluent pipeline was completed on October 21, 2016.	Project was accepted by the Board on March 27, 2017.	
15	Thickener Control Bldg. Modifications Project	a) Construction of new Thickener Control Area Structure by November 2016. b) Startup and Testing of New Pumps and Grinders by January 2017. c) Substantial Completion of Project construction by April 2017.	New splitter box was placed in service on September 19, 2016. Completed construction of the new Thickener Control Area Structure with 95% of the steel coating completed in September 2016.	New Thickener Structure was completed in October 2016. Startup and testing of new pumps was completed in December 2016. Relocation of interim pumps was completed in December 2016.	Project was substantially completed on March 3, 2017. Punch list work and contract change order negotiations remain.	
16	Wet Weather Flow Management	Complete environmental review within 3 months of accepted conditional offer for any viable property.	Awaiting for opportunity to make an offer on viable property.	Plant Master Plan effort includes real estate consultant to assist in developing a plan and strategy for acquiring parcels.	Inquiries into several properties has begun.	

SUMMARY OF CIP PROJECTS FOR FY 17

Type of Project	Number of Projects	Names of Projects
Collection System	Three	<ol style="list-style-type: none"> 1. Alvarado-Niles Blvd. Sewer Rehab 2. Newark Backyard Sewer Relocation, Phase III 3. Pine Street Easement Repair
Transport System	Five	<ol style="list-style-type: none"> 1. Equalization Storage at Alvarado 2. Forcemain Corrosion Repairs – West 3. Fremont & PP LS Internal Lift Pumps 4. Newark PS Mod Valve & Boost Line Mods 5. Wet Weather Flow Management
Treatment System	Sixteen	<ol style="list-style-type: none"> 1. 3rd Degritter System 2. Aeration System Rehab 3. Cogeneration Project, Phase II 4. Cogen Engine Rebuild 5. Diffuser Replacement 6. Digesters 1 – 3 Gas Isolation Valves 7. Digester No. 3 Inspection and Rehab 8. Digester No. 7 9. Emergency Outfall Improvements 10. Headworks Valve Box Gate Valves 1 – 3 11. Hypochlorite Tanks and PVC piping replacement at OCB and NPS. 12. MCC Replacement Project, Phase III 13. Plant Facilities Improvements Project 14. Sludge Drying (BACWA) 15. Standby Power Generation System Upgrade 16. Thickener Control Bldg. Improvements Project

Total:

24

PRIORITY 1 CIP PROJECT CRITERIA

Priority 1 Projects:

1. Project to repair or prevent an imminent critical infrastructure failure that could result in a threat to the public, or result in permit non-compliance.
2. A project designed to address public health and safety or employee health and safety.
3. Project to provide additional capacity in order to allow connection to the District system or to prevent a potential wet weather overflow from occurring.
4. Projects that have a deadline tied to receiving a loan or grant funding.
5. Projects where we have made a timeline commitment to a customer or other outside stakeholder.
6. A project in which the District may suffer financial losses or claims should the project be delayed.
7. A project which is part of a sequence of projects whose delay could result in delays to other projects at USD or other agencies.
8. A project in which an internal commitment has been made to provide a facility that significantly impacts another group from efficiently and effectively carrying out their core work. (Not a “nice to have” type project)

These criteria can apply to a study, design, or construction project.

PRIORITY 2 & 3 CIP PROJECT CRITERIA

Priority 2 Projects

1. These are planned projects related to the replacement of electrical and mechanical equipment identified by the Plant Master Plan – this equipment is not in imminent danger of failure but needs to be replaced at a future date.
2. These are planned pipeline rehab/replacement projects that are identified either by the Master Plan or by the Maintenance staff and need to be completed to improve the condition of existing sewers to safeguard against potential maintenance problems – these pipelines are not in imminent danger of failure.
3. These projects do not have any immediate negative impacts on either other agencies or other projects.
4. Examples: Blacow Road Sewer Replacement, Cast Iron Pipe Replacement, Thickener Mechanism 3&4 Replacement, Rehab of Clarifiers 5&6.

Priority 3 Projects

1. These are capacity projects identified by the master plans that will address future capacity needs of the District.
2. These projects are place holders and need to be defined at a future date
3. The District will not suffer any financial loss or claim, if these projects are delayed.
4. Examples: Cedar Relief Sewer, Hetch Hetchy Relief Sewer, Digester No. 7, Secondary Clarifiers 7 & 8.



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: May 1, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Sami E. Ghossain, Manager of Technical Services

SUBJECT: Agenda Item No. 14 - Meeting of May 8, 2017
Information Item: **Third Quarterly Report on the Capital Improvement Program for FY 17**

Recommendation

Information only.

Background

In June 2016, the Board approved the Capital Improvement Program (CIP) budget for FY17 in the amount of \$14.67 million for the design and construction of 24 CIP projects. The first quarter expenditures for FY17 are shown on the attached budget projection graphs. These graphs depict actual expenditures versus approved budget for the Capacity Fund 900, the Renewal and Replacement Fund 800 as well as for both funds, combined.

The total CIP expenditure up to March 31, 2017, was below the projections for the third quarter by approximately \$1.69 million. The main projects that incurred less than the projected expenditures are the Wet Weather Flow Management, Cogen Phase II, and Cogen Engine Rebuild projects.

These primary variances are tabulated as follows:

Project	Variance at the end of 1st Quarter (x \$1000)	Comments
Wet Weather Flow Management	1,000	Pending the opportunity to locate a viable property.
Cogen Engine Rebuild	389	Pending the resolution of Engine No. 1 failure analysis.
Cogeneration Project - Phase II	300	Pending the resolution of a few issues including engine rebuild, engine cooling, and building ventilation.
Total Variance for the 3rd Qtr.	1,689	

In addition to the three (3) projects listed above, the following projects will be either in design or in construction during FY17:

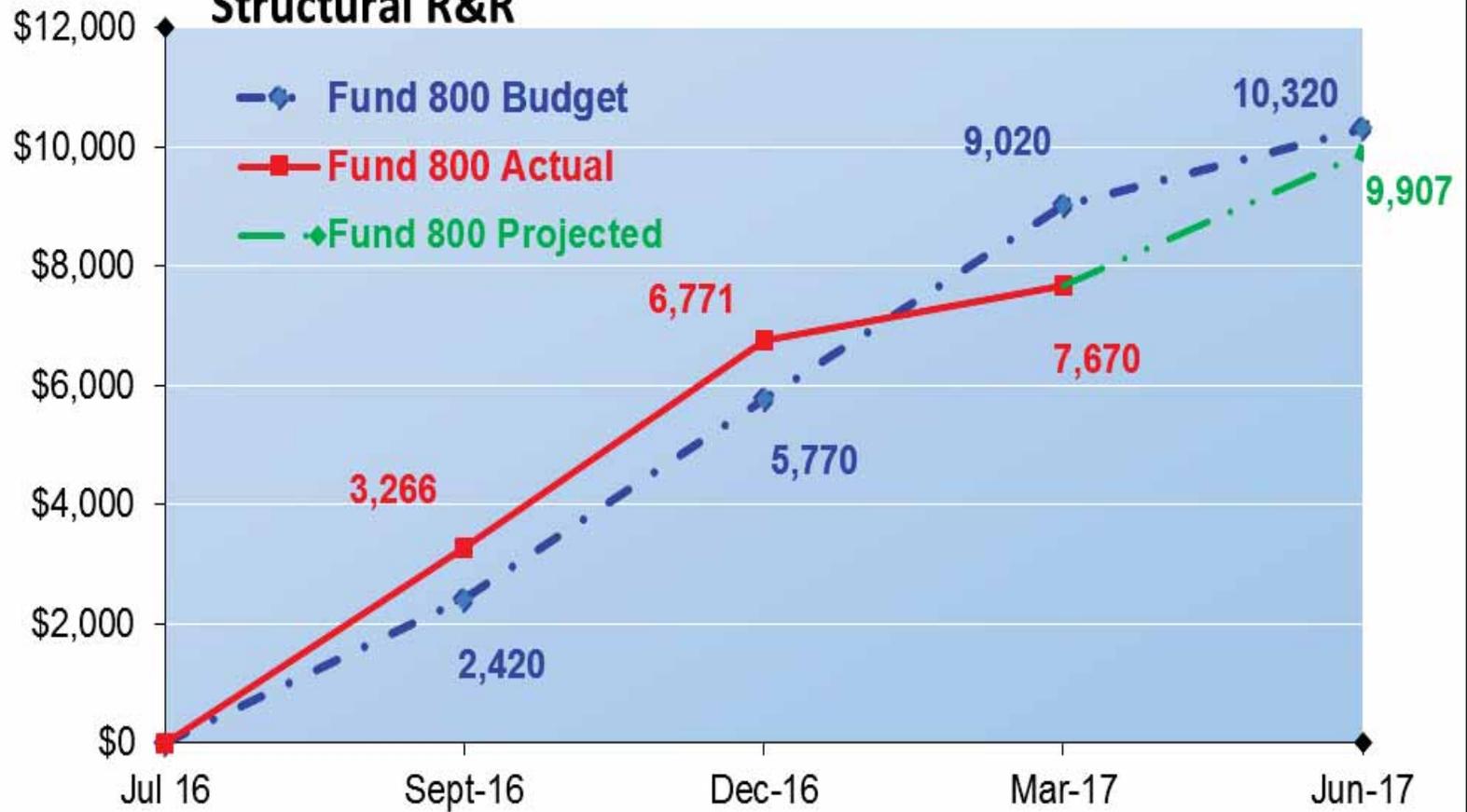
1. Alvarado-Niles Blvd. Sewer Rehab
2. Aeration System Rehab (High Speed Blower)
3. Diffuser Replacement
4. Digester No. 3 Insp and Rehab
5. Equalization Storage at Alvarado
6. Force Main corrosion Repairs – West
7. Fremont & PP LS Internal Lift Pumps
8. Hypochlorite Tanks and PVC piping replacement
9. MCC and PLC Replacement Phase 3
10. Newark Backyard Sewer Relocation Phase 3
11. Newark Pump Station Modulating Valve and Boost Line Modifications
12. Pine St. Easement
13. Plant Facilities Improvements
14. Thickener Control Bldg. Improvements

In addition, seven (7) other smaller projects will be either in design or in construction during FY17.

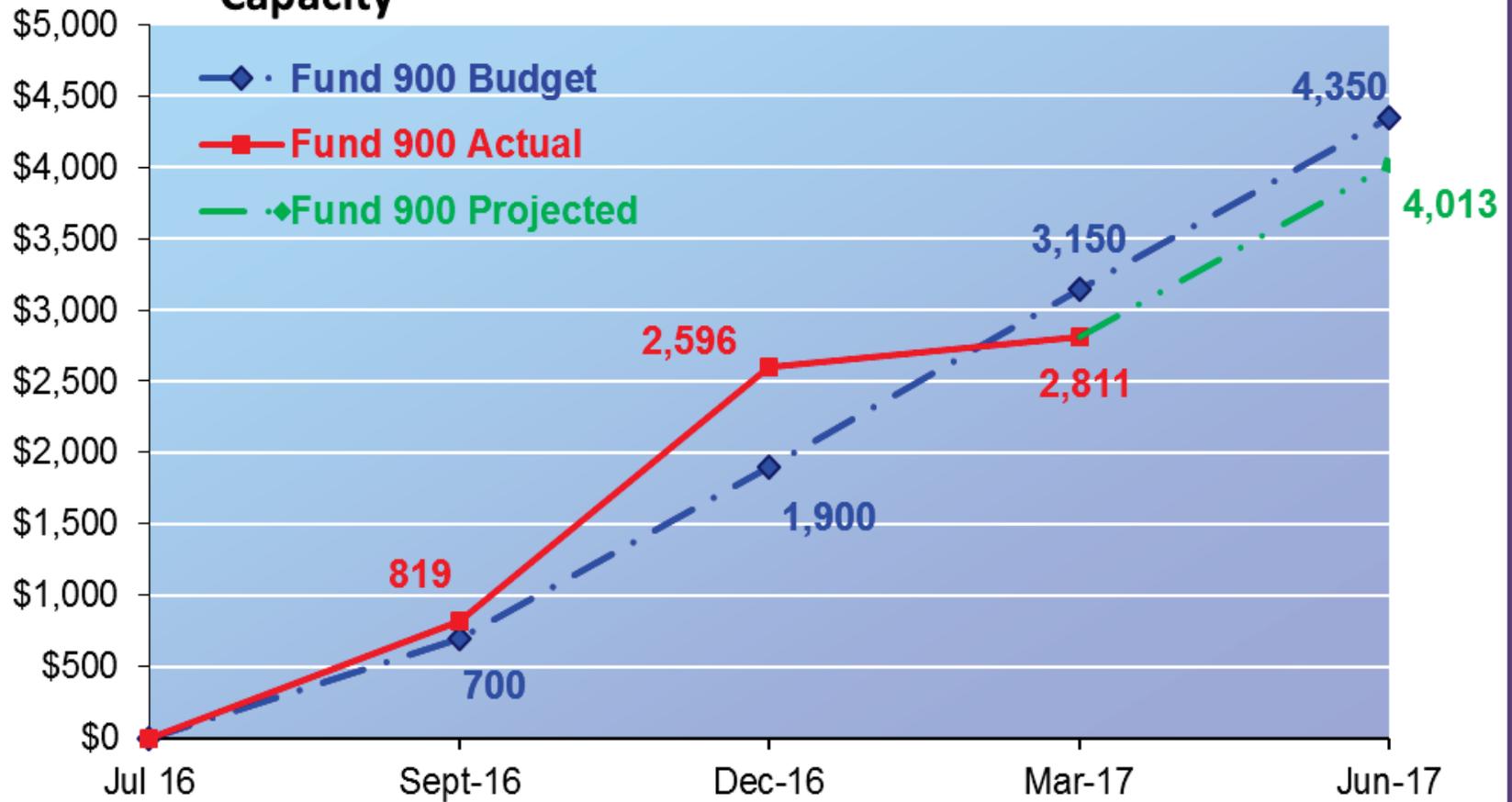
PRE/SEG:ks

Attachment: Budget Graphs

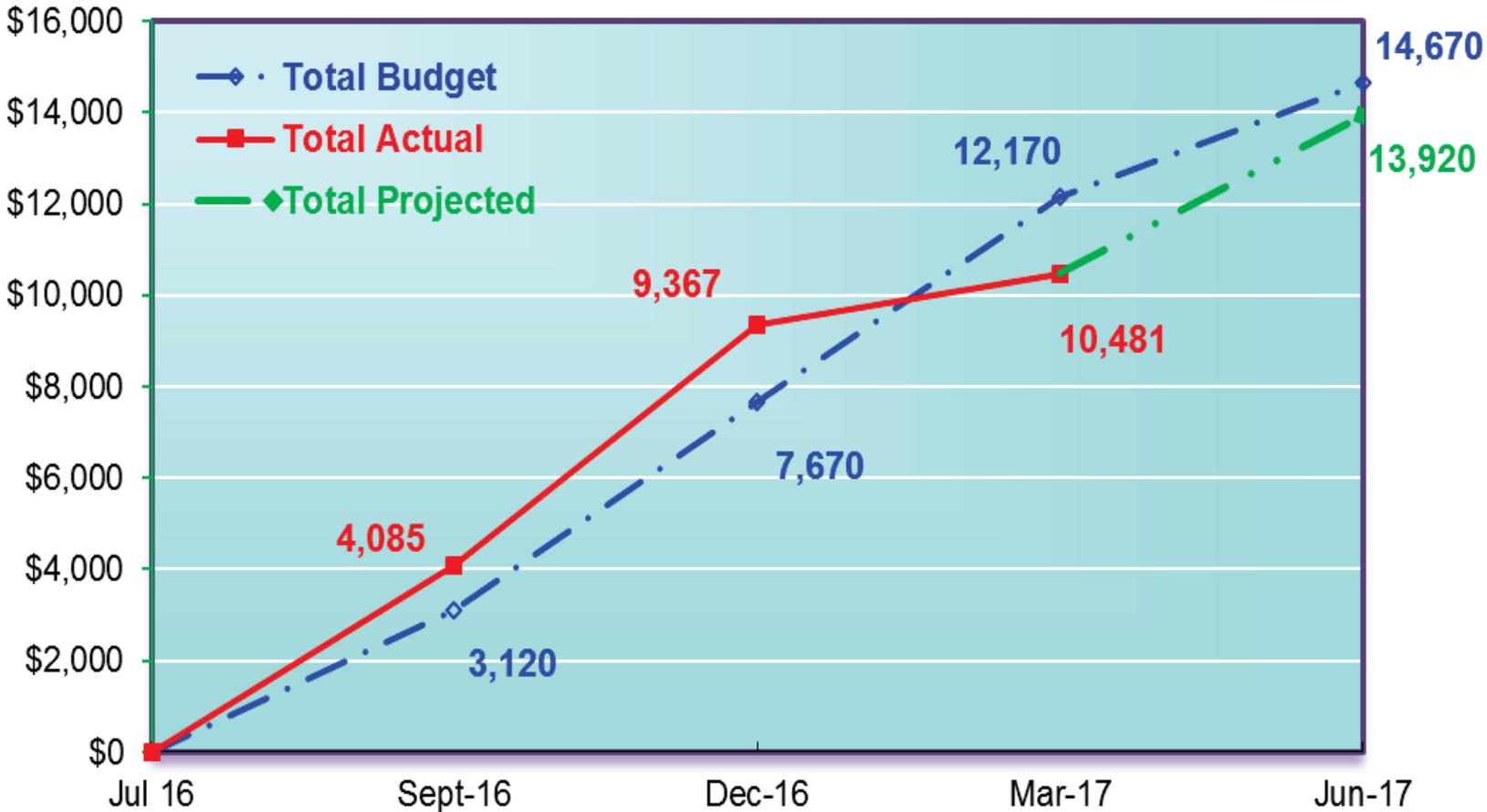
Structural R&R



Capacity



Total Cumulative





Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: May 1, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Paul R. Eldredge, General Manager/District Engineer
Pamela Arends-King, Business Services Manager/CFO
Roslyn Fuller, Purchasing Agent
Nina Narvaez, Administrative Specialist I

SUBJECT: Agenda Item No. 15 - Meeting of May 8, 2017
Information Item: **CAL-Card Quarterly Merchant Activity Report**

Background

The attached CAL-Card Merchant Spend Analysis details the CAL-Card activity for the third quarter of FY 2017. This covers transactions from the CAL-Card billing period January 23, 2017 through March 22, 2017. During this quarter, we had 215 transactions totaling \$54,162.53.

Attachments: Merchant Spend Analysis Report

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
47963	BUSINESS EXPENS	8398	ISA	919-549-8411	NC	\$ 5,890.00	3	\$ 1,963.33	\$ 0.00	0	\$ 5,890.00	11.20%	3	\$ 0.00
137510	Rialto	9399	CITY OF FREMONT DEV SVCS	FREMONT	CA	5,400.00	4	1,350.00	0.00	0	5,400.00	10.27%	4	0.00
217413	Prohibited Tran	8699	CALIFORNIA WATER ENVIRONM	510-3827800	CA	2,549.00	10	254.90	0.00	0	2,549.00	4.85%	10	0.00
217413	Prohibited Tran	8699	CALIFORNIA WATER ENVIRONM	510-3827800	CA	2,486.00	9	276.22	0.00	0	2,486.00	4.73%	9	0.00
47961	AUTO/RV DEALERS	5511	MISSION VALLEY FORD TRUCK	SAN JOSE	CA	1,852.05	2	926.03	0.00	0	1,852.05	3.52%	2	0.00
47978	VEHICLE EXPENSE	7531	GOLDEN GATE TRUCK CENTER	OAKLAND	CA	1,530.28	2	765.14	0.00	0	1,530.28	2.91%	2	84.16
47965	HOTELS	3640	HYATT VINEYARD CREEK	SANTA ROSA	CA	1,522.72	3	507.57	0.00	0	1,522.72	2.90%	3	0.00
217413	Prohibited Tran	8699	CASA	916-2470245	CA	1,100.00	2	550.00	0.00	0	1,100.00	2.09%	2	0.00
47979	WHOLESALE TRADE	5072	THE LIGHTHOUSE	HAYWARD	CA	1,052.64	4	263.16	0.00	0	1,052.64	2.00%	4	0.00
47971	OFFICE SUPPLIES	5942	AMAZON.COM AMZN.COM/BILL	AMZN.COM/BILL	WA	984.65	4	246.16	0.00	0	984.65	1.87%	4	0.00
47979	WHOLESALE TRADE	5065	BATTERY SYSTEMS SAN JOSE	866-365-0850	CA	974.51	1	974.51	0.00	0	974.51	1.85%	1	78.41
47972	OTHER	5732	METRO MOBILE COMMUNICATIO	650-3671992	CA	960.48	1	960.48	0.00	0	960.48	1.83%	1	83.00
217413	Prohibited Tran	8699	WEF WYTHE	800-6660206	VA	936.00	3	312.00	0.00	0	936.00	1.78%	3	0.00
47979	WHOLESALE TRADE	5085	HACH COMPANY	9706631377	CO	931.97	2	465.99	0.00	0	931.97	1.77%	2	71.58
137510	Rialto	9399	UNION CITY CITY HALL	510-675-5381	CA	906.00	2	453.00	0.00	0	906.00	1.72%	2	0.00
212656	SCCLD AUTO	7549	BERRY BROS TOWING AND TRA	800-4647215	CA	812.50	1	812.50	0.00	0	812.50	1.55%	1	0.00
47963	BUSINESS EXPENS	8299	WWW.LORMAN.COM	800-678-3940	WI	745.80	2	372.90	0.00	0	745.80	1.42%	2	0.00
47966	MAIL/TELEPHON	5964	NPC*NEW PIG	800-468-4647	PA	678.10	1	678.10	0.00	0	678.10	1.29%	1	0.00

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
47966	E		CORP											
47979	WHOLESALE TRADE	5039	TRI CITY ROCK	FREMONT	CA	646.77	1	646.77	0.00	0	646.77	1.23%	1	0.00
47979	WHOLESALE TRADE	5331	LAKE COUNTY PIPE	847-662-2626	IL	620.05	1	620.05	0.00	0	620.05	1.18%	1	0.00
47966	MAIL/TELEPHONE	5964	CDW GOVERNMENT	800-800-4239	IL	617.64	1	617.64	0.00	0	617.64	1.17%	1	0.00
141822	Hardware Supply	5200	LOWES #01132*	UNION CITY	CA	617.60	4	154.40	0.00	0	617.60	1.17%	4	54.88
47970	OFFICE SERVICES	7399	PUBLIC RISK MANAGEMENT	703-5287701	VA	590.00	1	590.00	0.00	0	590.00	1.12%	1	0.00
47979	WHOLESALE TRADE	5047	IN *I.R.I. PRODUCTS, PRO-	209-5451691	CA	535.00	1	535.00	0.00	0	535.00	1.02%	1	45.00
137510	Rialto	9399	CITY OF FOSTER CITY EMID	650-286-3265	CA	500.00	1	500.00	0.00	0	500.00	0.95%	1	0.00
47979	WHOLESALE TRADE	5045	CDW GOVT #GXJ4017	800-808-4239	IL	495.13	1	495.13	0.00	0	495.13	0.94%	1	41.99
47979	WHOLESALE TRADE	5169	AIRGAS WEST	562-497-1991	CA	477.07	1	477.07	0.00	0	477.07	0.91%	1	42.38
47961	AUTO/RV DEALERS	5511	MISSION VALLEY FORD TRUCK	SAN JOSE	CA	467.15	2	233.58	0.00	0	467.15	0.89%	2	0.00
47979	WHOLESALE TRADE	5047	INDUSTRIAL SAFETY SUPPLY	510-6580414	CA	459.90	1	459.90	0.00	0	459.90	0.87%	1	39.90
217413	Prohibited Tran	8699	CAPIO - CA ASSOCIATION OF	530-9245444	CA	450.00	1	450.00	0.00	0	450.00	0.86%	1	0.00
47962	BUILDING SERVIC	1799	MORSE HYDRAULICS USA LLC	510-623-1240	CA	447.52	2	223.76	0.00	0	447.52	0.85%	2	37.89
47962	BUILDING SERVIC	1799	M- I-C INC	925-4937955	CA	431.01	2	215.51	0.00	0	431.01	0.82%	2	0.00
47963	BUSINESS EXPENS	8398	NIGP	800-367-6447	VA	430.00	1	430.00	0.00	0	430.00	0.82%	1	0.00
284298	VTA Catering	5812	TOGOS EATERY	UNION CITY	CA	426.43	3	142.14	0.00	0	426.43	0.81%	3	0.00
47978	VEHICLE EXPENSE	5533	FLEETPRIDE 720	800-2333038	CA	424.60	2	212.30	0.00	0	424.60	0.81%	2	18.86

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/ Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
137510	Rialto	9399	PAYPAL *3CMA	402-935-7733	DC	\$ 400.00	1	\$ 400.00	\$ 0.00	0	\$ 400.00	0.76%	1	\$ 0.00
47971	OFFICE SUPPLIES	5942	AMAZON.COM	AMZN.COM/BILL	WA	398.83	1	398.83	0.00	0	398.83	0.76%	1	0.00
47979	WHOLESALE TRADE	5065	NEWARKINONE-US 00000109	773-9075740	IL	385.22	1	385.22	0.00	0	385.22	0.73%	1	34.22
308480	MISC PERSONAL	7299	IN *MAXIMUM OIL SERVICE	707-5528419	CA	382.25	1	382.25	0.00	0	382.25	0.73%	1	0.00
289498	IT SOFTWARE	5734	SYSTEMTOOLS SOFTWARE INCO	830-779-2349	TX	378.00	1	378.00	0.00	0	378.00	0.72%	1	0.00
284298	VTA Catering	5812	TOGOS EATERY	UNION CITY	CA	370.83	4	92.71	0.00	0	370.83	0.71%	4	0.00
47970	OFFICE SERVICES	7399	BOXWOOD TECHNOLOGY	888-4918833	MD	350.00	2	175.00	0.00	0	350.00	0.67%	2	0.00
47979	WHOLESALE TRADE	5072	BURLINGTON SAFETY LABORAT	925-8661412	CA	336.93	1	336.93	0.00	0	336.93	0.64%	1	0.00
47979	WHOLESALE TRADE	5199	TAP PLASTICS #10	510-3573755	CA	316.09	1	316.09	0.00	0	316.09	0.60%	1	28.80
47979	WHOLESALE TRADE	5199	TAP PLASTICS # 20	510-8958249	CA	314.20	1	314.20	0.00	0	314.20	0.60%	1	26.60
47979	WHOLESALE TRADE	5045	CDW GOVT #HBJ8285	800-808-4239	IL	306.89	1	306.89	0.00	0	306.89	0.58%	1	0.00
47979	WHOLESALE TRADE	5099	ACCUFORM.COM LLC	800-237-1001	FL	299.85	1	299.85	0.00	0	299.85	0.57%	1	0.00
47963	BUSINESS EXPENS	8398	PAYPAL *CWEA	402-935-7733	CA	285.00	1	285.00	0.00	0	285.00	0.54%	1	0.00
47971	OFFICE SUPPLIES	5942	AMAZON MKTPLACE PMTS	AMZN.COM/BILL	WA	278.29	4	69.57	0.00	0	278.29	0.53%	4	0.00
138753	SEMINAR/CONF.	8641	CALIFORNIA SOCIETY OF MUN	916-2312137	CA	275.00	1	275.00	0.00	0	275.00	0.52%	1	0.00
47960	AIRLINE	3066	SOUTHWES 5262476710994	800-435-9792	TX	274.88	1	274.88	0.00	0	274.88	0.52%	1	0.00
47970	OFFICE SERVICES	7399	ACT*MSA SF BAY AREA CH	877-551-5560	TX	270.00	3	90.00	0.00	0	270.00	0.51%	3	0.00
217413	Prohibited Tran	8699	CALIFORNIA ASSOCIATION OF	530-8225009	CA	260.00	1	260.00	0.00	0	260.00	0.49%	1	0.00

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/ Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
47963	BUSINESS EXPENS	8398	NACE INTERNATIONAL	800-797-6223	TX	\$ 250.00	1	\$ 250.00	\$ 0.00	0	\$ 250.00	0.48%	1	\$ 0.00
119156	MCC001	1520	IN *ALL CRANE TRAINING US	510-6386243	CA	250.00	1	250.00	0.00	0	250.00	0.48%	1	0.00
47979	WHOLESALE TRADE	5085	U.S. PLASTIC CORPORATION	419-228-2242	OH	245.64	1	245.64	0.00	0	245.64	0.47%	1	0.00
47978	VEHICLE EXPENSE	5533	ALLIED AUTO STORES	FREMONT	CA	233.52	1	233.52	0.00	0	233.52	0.44%	1	0.00
47970	OFFICE SERVICES	7399	HTTP://WEBEX.COM	916-861-3174	CA	228.00	1	228.00	0.00	0	228.00	0.43%	1	0.00
47971	OFFICE SUPPLIES	5942	AMAZON MKTPLACE PMTS	AMZN.COM/BILL	WA	220.82	3	73.61	0.00	0	220.82	0.42%	3	0.00
119156	MCC001	9311	BOE SPECIAL TAX	800-4874567	CA	220.00	1	220.00	0.00	0	220.00	0.42%	1	0.00
284298	VTA Catering	5812	BUCKHORN GRILL UNION CITY	UNION CITY	CA	216.51	3	72.17	0.00	0	216.51	0.41%	3	0.00
47970	OFFICE SERVICES	8931	PAYPAL *GRACEDISTR	402-935-7733	CA	213.60	1	213.60	0.00	0	213.60	0.41%	1	0.00
289498	IT SOFTWARE	5734	SOURCEGEAR DBA ZUMERO	ZUMERO.COM	IL	210.00	1	210.00	0.00	0	210.00	0.40%	1	0.00
47970	OFFICE SERVICES	7399	COMMERCIAL VAN INTERIORS	510-441-7477	CA	208.52	1	208.52	0.00	0	208.52	0.40%	1	18.52
150085	MCC5969	5969	MUCKBOOTCO	813-6376900	FL	208.51	1	208.51	0.00	0	208.51	0.40%	1	0.00
137510	Rialto	9399	CALIFORNIA SPECIAL DISTR	916-442-7887	CA	205.00	4	51.25	0.00	0	205.00	0.39%	4	0.00
47963	BUSINESS EXPENS	8999	PAYPAL *RMCMLLI	402-935-7733	CA	200.00	1	200.00	0.00	0	200.00	0.38%	1	0.00
		8249	ACADEMYX TRAINING	415-392-8024	CA	200.00	1	200.00	0.00	0	200.00	0.38%	1	0.00
47970	OFFICE SERVICES	8911	BROWN AND CALDWELL	925-2102277	CO	200.00	1	200.00	0.00	0	200.00	0.38%	1	0.00
47963	BUSINESS EXPENS	8299	SOCIETY FOR HUMAN RESOURC	703-5483440	VA	199.00	1	199.00	0.00	0	199.00	0.38%	1	0.00
47960	AIRLINE	3066	SOUTHWES 5262490313634	800-435-9792	TX	193.87	1	193.87	0.00	0	193.87	0.37%	1	0.00

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
47979	WHOLESALE TRADE	5300	COSTCO WHSE #1061	HAYWARD	CA	\$ 181.15	1	\$ 181.15	\$ 0.00	0	\$ 181.15	0.34%	1	\$ 0.00
289779	COMPUTER	4816	DRI*TECHSMITH	ORDERFIND.COM	MN	179.00	1	179.00	0.00	0	179.00	0.34%	1	0.00
47979	WHOLESALE TRADE	5046	SENSIDYNE LP	727-5303602	FL	168.85	1	168.85	0.00	0	168.85	0.32%	1	0.00
47979	WHOLESALE TRADE	5310	JET.COM	855-538-4323	NJ	152.46	1	152.46	0.00	0	152.46	0.29%	1	13.54
217413	Prohibited Tran	8699	GOVERNMENT FINANCE	312-977-9700	IL	150.00	1	150.00	0.00	0	150.00	0.29%	1	0.00
47963	BUSINESS EXPENS	8299	SKILLPATH NATIONAL	913-3623900	KS	149.00	1	149.00	0.00	0	149.00	0.28%	1	0.00
47979	WHOLESALE TRADE	5399	CHEMETRICS.COM	540-7889026	VA	148.02	1	148.02	0.00	0	148.02	0.28%	1	0.00
47970	OFFICE SERVICES	7399	ZIPRECRUITER, INC.	855-747-5493	CA	148.00	1	148.00	0.00	0	148.00	0.28%	1	0.00
281845	Food Exceptions	5814	CHIPOTLE ONLINE	303-595-4000	CO	142.02	1	142.02	0.00	0	142.02	0.27%	1	0.00
235401	REGISTRATION	8111	LIEBERTCASS	310-981-2000	CA	140.00	2	70.00	0.00	0	140.00	0.27%	2	0.00
138753	SEMINAR/CONF.	8641	FREMONT CHAMBER OF CMMRC	FREMONT	CA	135.00	1	135.00	0.00	0	135.00	0.26%	1	0.00
47979	WHOLESALE TRADE	5251	COMPRESSOR SOURCE	402-4357203	NE	131.75	1	131.75	0.00	0	131.75	0.25%	1	0.00
47979	WHOLESALE TRADE	5072	FRESH WATER SYSTEMS, INC	864-284-1842	SC	131.25	1	131.25	0.00	0	131.25	0.25%	1	0.00
47979	WHOLESALE TRADE	5231	HAYWARD COLOR INC	510-7839003	CA	124.34	1	124.34	0.00	0	124.34	0.24%	1	0.00
47978	VEHICLE EXPENSE	5533	GMPARTSDIRECT.COM	336-7607046	NC	118.19	1	118.19	0.00	0	118.19	0.22%	1	0.00
47979	WHOLESALE TRADE	5046	JM EQUIPMENT MANTECA	209-522-3271	CA	106.92	1	106.92	0.00	0	106.92	0.20%	1	0.00
47978	VEHICLE EXPENSE	5533	OILDRAINVELVE.NET	WWW.OILDRAINV	WA	103.90	1	103.90	0.00	0	103.90	0.20%	1	0.00
281845	Food Exceptions	5411	LUCKY #782 UNION CI	UNION CITY	CA	102.20	5	20.44	0.00	0	102.20	0.19%	5	0.00

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/ Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
47979	WHOLESALE TRADE	5085	FARWEST CORROSION CONTRO	310-532-9524	CA	\$ 98.39	1	\$ 98.39	\$ 0.00	0	\$ 98.39	0.19%	1	\$ 6.22
119156	MCC001	3057	VIRGIN AMER 9847981623639	FT LAUDERDALE	FL	98.10	1	98.10	0.00	0	98.10	0.19%	1	0.00
281845	Food Exceptions	5814	MR PICKLES 325 - UNION	510-431-3488	CA	95.92	2	47.96	0.00	0	95.92	0.18%	2	0.00
47979	WHOLESALE TRADE	5039	TOOLUP.COM	702-873-4332	NV	90.40	1	90.40	0.00	0	90.40	0.17%	1	0.00
47960	AIRLINE	3256	ALASKA AIR 0277981692601	SEATTLE	WA	88.10	1	88.10	0.00	0	88.10	0.17%	1	0.00
47970	OFFICE SERVICES	7338	CARBON LESS ON DEMAND	330-837-8611	OH	81.00	1	81.00	0.00	0	81.00	0.15%	1	0.00
47979	WHOLESALE TRADE	5251	HARBOR FREIGHT TOOLS 638	FREMONT	CA	78.63	2	39.32	0.00	0	78.63	0.15%	2	6.65
47979	WHOLESALE TRADE	5065	MOUSER ELECTRONICS INC	800-346-6873	TX	73.16	1	73.16	0.00	0	73.16	0.14%	1	5.79
47971	OFFICE SUPPLIES	5942	AMAZON.COM	AMZN.COM/BILL	WA	65.86	1	65.86	0.00	0	65.86	0.13%	1	0.00
47972	OTHER	4215	FEDEX 785346980798	MEMPHIS	TN	64.68	1	64.68	0.00	0	64.68	0.12%	1	0.00
47979	WHOLESALE TRADE	5099	IN *SWAN ASSOCIATES INCOR	707-7461989	CA	63.22	1	63.22	0.00	0	63.22	0.12%	1	9.75
141822	Hardware Supply	5200	QC SUPPLY	402-352-3167	NE	61.63	1	61.63	0.00	0	61.63	0.12%	1	4.03
280348	Shigley Solvent	5541	SHELL OIL 57444673701	DANVILLE	CA	60.00	1	60.00	0.00	0	60.00	0.11%	1	4.57
47979	WHOLESALE TRADE	5065	GRAYBAR ELECTRIC COMPANY	314-573-9200	MO	59.01	1	59.01	0.00	0	59.01	0.11%	1	4.06
47970	OFFICE SERVICES	8911	CALIFORNIA SURVEY INET	916-344-0232	CA	58.56	1	58.56	0.00	0	58.56	0.11%	1	0.00
47970	OFFICE SERVICES	5968	WWW.MINDTOOLS.COM	MINDTOOLS.COM		57.00	3	19.00	0.00	0	57.00	0.11%	3	0.00
137510	Rialto	9399	CA DEPT PEST	916-4453891	CA	50.00	1	50.00	0.00	0	50.00	0.10%	1	0.00

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
137510	Rialto	9399	REG PUBLICA HOLLY COMM CENTER	510-6755352	CA	50.00	1	50.00	0.00	0	50.00	0.10%	1	0.00
47966	MAIL/TELEPHONE	5964	2CO.COM*CORETE CHN	614-921-2449	OH	49.99	1	49.99	0.00	0	49.99	0.10%	1	0.00
281845	Food Exceptions	5814	CHIPOTLE ONLINE	303-605-1042	CO	47.91	1	47.91	0.00	0	47.91	0.09%	1	0.00
47963	BUSINESS EXPENS	8398	NFPA NATL FIRE PROTECT	800-344-3555	MA	46.80	1	46.80	0.00	0	46.80	0.09%	1	0.00
289498	IT SOFTWARE	5734	DRI*CLOUDBERRY LABTM	952-3922584	MN	39.99	1	39.99	0.00	0	39.99	0.08%	1	0.00
47972	OTHER	4215	FEDEX 785232968022	MEMPHIS	TN	39.25	1	39.25	0.00	0	39.25	0.07%	1	0.00
47979	WHOLESALE TRADE	5046	PAPE MATERIAL HANDLING	FREMONT	CA	37.74	1	37.74	0.00	0	37.74	0.07%	1	0.00
47979	WHOLESALE TRADE	5085	DISTRIBUTION INT'L	800-275-6679	TX	32.51	1	32.51	0.00	0	32.51	0.06%	1	0.00
47978	VEHICLE EXPENSE	5542	SHELL OIL 57444675706	NEWARK	CA	32.20	1	32.20	0.00	0	32.20	0.06%	1	2.73
47970	OFFICE SERVICES	7399	YAHOO SMALL BUSINESS	866-438-1582	CA	27.88	2	13.94	0.00	0	27.88	0.05%	2	0.00
47971	OFFICE SUPPLIES	5943	OFFICEMAX/OFFICEDEPOT6177	UNION CITY	CA	26.28	2	13.14	0.00	0	26.28	0.05%	2	2.33
47978	VEHICLE EXPENSE	4784	FASTRAK CSC	415-486-8655	CA	25.00	1	25.00	0.00	0	25.00	0.05%	1	0.00
47978	VEHICLE EXPENSE	5533	OREILLY AUTO #2780	FREMONT	CA	22.91	1	22.91	0.00	0	22.91	0.04%	1	1.00
141822	Hardware Supply	5200	THE HOME DEPOT #0635	UNION CITY	CA	19.46	1	19.46	0.00	0	19.46	0.04%	1	1.73
47979	WHOLESALE TRADE	5310	WAL-MART #2031	UNION CITY	CA	17.72	2	8.86	0.00	0	17.72	0.03%	2	0.24
47979	WHOLESALE TRADE	5251	D & F LIQUIDATORS	510-785-9600	CA	16.39	1	16.39	0.00	0	16.39	0.03%	1	0.00
47970	OFFICE SERVICES	5968	WEB*NETWORKSOLUTIONS	888-642-9675	FL	15.99	1	15.99	0.00	0	15.99	0.03%	1	0.00

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
141822	Hardware Supply	5200	THE HOME DEPOT #6636	FREMONT	CA	\$ 15.93	1	\$ 15.93	\$ 0.00	0	\$ 15.93	0.03%	1	\$ 1.38
47970	OFFICE SERVICES	7399	YAHOO SMALL BUSINESS	866-438-1582	CA	13.94	1	13.94	0.00	0	13.94	0.03%	1	0.00
47970	OFFICE SERVICES	5968	AMAZONPRIME MEMBERSHIP	AMZN.COM/PRME	WA	12.06	1	12.06	0.00	0	12.06	0.02%	1	0.00
47978	VEHICLE EXPENSE	5533	PAYPAL *H AND S	402-935-7733	CA	10.25	1	10.25	0.00	0	10.25	0.02%	1	0.00
47970	OFFICE SERVICES	5968	CONTRA COSTA NEWS CIRCULA	800-5984637	CA	10.00	1	10.00	0.00	0	10.00	0.02%	1	0.00
47973	OTHER TRAVEL	4722	JUSTFLY.COM	800-717-5015	CT	9.95	1	9.95	0.00	0	9.95	0.02%	1	0.00
47971	OFFICE SUPPLIES	5942	AMAZON.COM	AMZN.COM/BILL	WA	9.86	1	9.86	0.00	0	9.86	0.02%	1	0.00
47979	WHOLESALE TRADE	5045	CDW GOVT #GVW6198	800-808-4239	IL	9.05	1	9.05	0.00	0	9.05	0.02%	1	0.80
47979	WHOLESALE TRADE	5251	FASTENAL COMPANY01	NEWARK	CA	7.00	1	7.00	0.00	0	7.00	0.01%	1	0.00
47972	OTHER	5732	FRY'S ELECTRONICS #21	FREMONT	CA	5.44	1	5.44	0.00	0	5.44	0.01%	1	0.46
119156	MCC001	9311	OPC BOE SPECIAL TAX	800-4874567	AL	5.06	1	5.06	0.00	0	5.06	0.01%	1	0.00
47972	OTHER	4215	FEDEX 880146604458	MEMPHIS	TN	4.38	1	4.38	0.00	0	4.38	0.01%	1	0.00
47970	OFFICE SERVICES	5968	AMAZONPRIME MEMBERSHIP	AMZN.COM/PRME	WA	12.06	1	12.06	12.06	1	0.00	0.00%	2	0.00
47979	WHOLESALE TRADE	5045	INTELLIGEN_VIEW GUARD	JACKSONVILLE	FL	0.00	0	0.00	72.30	1	(72.30)	0.00%	1	0.00
217413	Prohibited Tran	8699	PAYPAL *RMCMULLI	4029357733	CA	0.00	0	0.00	100.00	1	(100.00)	0.00%	1	0.00

Merchant Spend Analysis - Detail

MCCG	Merchant Category Code Group Description	MCC	Merchant Name	Merchant City	Merchant State/ Province	Debit Amount	Nbr of Debit Trans	Average Spend per Debit Trans	Credit Amount	Nbr of Credit Trans	Total Spend	% of Total Spend	Nbr of Trans	Total Sales Tax
47963	BUSINESS EXPENS	8299	NATIONAL TECHNOLOGY TFR	800-363-7758	CO	\$ 0.00	0	\$ 0.00	\$1,399.00	1	\$ (1,399.00)	(2.66%)	1	\$ 0.00
Total						\$54,162.53			\$1,583.36		\$52,579.17		215	\$ 771.47

Total Number of Records: 139

End of Report

Merchant Spend Analysis - Detail Output Parameter Page

Cycle Close Date Range: 01/2017 to 03/2017
Report Type: Detail
Merchant Profile Source: Association
Merchant Names: All
Merchant Category Code Group: All
Merchant States: All

Sort Report By: (1) Total Spend, (2) No Sort, (3) No Sort, (4) No Sort
Break/Subtotal Level: No Break/Subtotal

Processing Hierarchy Position:	<u>Bank</u>	<u>Agent</u>	<u>Company</u>	<u>Division</u>	<u>Department</u>
	1425	3135	51756	All	All



Directors
Manny Fernandez
Tom Handley
Pat Kite
Anjali Lathi
Jennifer Toy

Officers
Paul R. Eldredge
*General Manager/
District Engineer*

Karen W. Murphy
Attorney

DATE: April 28, 2017

MEMO TO: Board of Directors - Union Sanitary District

FROM: Pamela Arends-King, Business Services Manager/Certified Financial Officer

SUBJECT: Agenda Item No. 16 – Meeting of May 8, 2017
Information Item: **Board Expenditures for the 2nd and 3rd Quarter of Fiscal Year 2017**

Recommendation

Information only.

Background

Please see attached the Board of Directors Quarterly Travel and Training Expenditure Report, and supporting documentation, for the 2nd and 3rd quarters of Fiscal Year 2017.

BOARD OF DIRECTORS
QUARTERLY TRAVEL AND TRAINING EXPENDITURE REPORT
2ND AND 3RD QTR, FISCAL YEAR 2017

Board Members	Description	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Beginning Balance	Y-T-D Expense	Balance Available
FERNANDEZ, MANNY	CSDA Seminar: Board Member Best Practices			50.00				
	TOTAL	0.00	0.00	50.00	0.00	5000.00	50.00	4950.00
HANDLEY, TOM	Union City Chamber of Commerce - Spirit Awards Luncheon: Registration	45.00						
	Union City State of the City Luncheon		30.00					
	TOTAL	45.00	30.00	0.00	0.00	5000.00	75.00	4925.00
HARRISON, JENNIFER	CASA 61st Annual Conference: Registration Fee	550.00						
	CASA 61st Annual Conference: Lodging	881.68						
	CASA 61st Annual Conference: Parking	50.00						
	CASA 61st Annual Conference: Meals	30.09						
	CASA 61st Annual Conference: Mileage	94.69						
	CSDA: Harassment Prevention Webinar			65.00				
	TOTAL	1,606.46	0.00	65.00	0.00	5000.00	1,671.46	3328.54
KITE, PAT	CASA 61st Annual Conference: Registration Fee	550.00						
	CASA 61st Annual Conference: Lodging	550.64						
	CASA 61st Annual Conference: Meals	22.19						
	CASA 61st Annual Conference: Tips	6.00						
	Lorman Education Services: Audio & Reference Guide: Endangered Species Act		232.05					
	Lorman Webinar: Environmental Issues & Agriculture		219.00					
	CSDA: Harassment Prevention Webinar			65.00				
	Lorman Webinar: Recent Developments in Graywater Reuse			219.00				
	Newark Chamber of Commerce Holiday Luncheon			42.00				
	Lorman Membership for Training/Webinars			526.80				
	TOTAL	1,128.83	451.05	852.80	0.00	5000.00	2,432.68	2567.32
LATHI, ANJALI	Union City Chamber of Commerce - Spirit Awards Luncheon: Registration	45.00						
	Union City State of the City Luncheon		30.00					
	CWEA Membership			172.00				
	TOTAL	45.00	30.00	172.00	0.00	5000.00	247.00	4753.00
	GRAND TOTAL	2,825.29	511.05	1,139.80	0.00	25000.00	4,476.14	20523.86

The Board of Directors' Quarterly Expenditure Report is attached as part of the check register in accordance with Board Member Business Expense policy adopted September 5, 1991



(<http://www.csda.net>)

+ NAV

Order Confirmation

California Special Districts Association 1112 I Street, Suite 200, Sacramento, CA 95814			
Order Number	58282		
Order Date	1/10/2017		
Bill To	Ms. Regina McEvoy		
Payment Method	Visa		
Name on Card	Regina McEvoy		
Ship To	Ms. Regina McEvoy 5072 Benson Road Union City, CA 94587		
Item	Quantity	Price	Total
Board Member Best Practices - Mr. Manny Fernandez When: 2/16/2017 - 2/16/2017 Where: Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118-3614 United States Registration Option: Registered - Board Member Best Practices	1	50.00	50.00
		Item Total	50.00
		Transaction	
		Grand Total	50.00

A confirmation is being sent to: reginam@unionsanitary.ca.gov

Send another copy to:

If you purchased a webinar or an on-demand webinar you can access it
Here (/imis15/CSDA/My_Account_Pages/My_Courses.aspx)

California Special Districts Alliance



(<http://www.csda.net>)

(<http://sdrma.org>)



(<http://csdafinance.net/>)

Regina McEvoy

From: info@unioncitychamber.com
Sent: Tuesday, October 18, 2016 3:20 PM
To: Regina McEvoy
Subject: Confirmation: State of the City Luncheon

Registration Confirmation

Your registration for State of the City Luncheon has been received.

Confirmation Number: e.2758.9.7
Primary Contact: Regina McEvoy
Payment Type: Credit Card

[Add to Calendar](#)

[Edit Registration](#)

Summary			
Item	Description	Quantity	Total Amt
State of the City Luncheon	Tom Handley	1	30.00
State of the City Luncheon	Anjali Lathi	1	30.00
Total:		60.00	PAID

State of the City Luncheon

Mayor, Carol Dutra-Vernaci, and City Manager, Tony Acosta, will present their annual report on the latest developments in Union City. This event is an opportunity to come together and learn about the issues that impact our city and a great chance to meet your City Officials and enjoy a delicious lunch!

Date: October 26, 2016
Time: 11:30 AM - 01:30 PM PDT
Location: Masonic Home

34400 Mission Blvd.
Union City, CA
Contact: Madelyn Ramirez
Email: info@unioncitychamber.com

Date/Time Details: 11:30 - 1:30, lunch will be served at 12:00

Fees/Admission: For information on tickets and sponsorship [click here](#).

[Click Here for More Information](#)

[Add to Calendar](#)

Thank you!
Union City Chamber of Commerce - CA

Sheila Tolbert

From: emilyc@csda.net
Sent: Wednesday, January 11, 2017 12:41 PM
To: Sheila Tolbert
Subject: CSDA Order Confirmation



Dear Sheila,

Thank you for your order! We are glad to be a resource for you and your agency.

Below are the details of your purchase. Please retain this email for your records.

Order Number: 58340
Order Date: Jan 11, 2017 12:39 PM
Bill To: Ms. Sheila Tolbert
Order Total: 65.00
Payment Method: Visa
Name on Card: Sheila Tolbert

Item	Price	Qty	Total
Webinar: Required Harassment Prevention for Staff/Board - Ms. Jennifer Toy <i>When:</i> Jan 24, 2017 - Jan 24, 2017 <i>Registration option:</i> Jan 24, 2017 10:00 AM - Webinar: Required Harassment Prevention Training	65.00	1	65.00
	Item Total		65.00
	Shipping		0.00
	Handling		0.00
	Item Grand Total		65.00
	Transaction Grand Total		65.00

Thanks again!

Connect with us:



California Special Districts Association 1112 "I" Street, Suite 200, Sacramento, CA 95814 877.924.2732 or 916.442.7887

Lorman Education Services
 P.O. Box 509
 Eau Claire, WI 54702-0509
 866-352-9539

Thank you for your order. We appreciate your business.

Your confirmation number is 893395. We encourage you to contact us if you have any questions.

 [Printable Order Confirmation](#)

Purchase Confirmation

Quantity	Product	Type	Price	Subtotal
1	<u>Endangered Species Act Update</u>	Audio & Reference Manual	\$199.00	\$199.00
<i>For Pat Kite</i>		Subtotal		\$199.00
		Shipping		\$11.95
		Tax (10.00%)		\$21.10
		Total		\$232.05

Confirmation #893395

August 22, 2016

Billing Information

Regina McEvoy
 5072 Benson Road
 Union City, CA 94587
 Phone: 510-477-7503
 Fax: n/a

Shipping Information

Regina McEvoy
 5072 Benson Road
 Union City, CA 94587
 Phone: 510-477-7503
 Fax: n/a

Payment

Visa
 Regina McEvoy

Substitute registrants are welcome and may be named at any time. If you cancel six or more business days in advance, you will receive a full refund, less a \$20.00 service charge per attendee (\$30.00 for Canadian registrations). If you cancel within five business days you are not entitled to a cash refund. However, as a courtesy, we will allow you to apply your payment toward a future seminar within one year from the date you cancel. Your payment is transferable. Please note that if you do not attend and you do not cancel as described above, you are responsible for the entire payment.

222 of 258

Lorman Education Services
 P.O. Box 509
 Eau Claire, WI 54702-0509
 866-352-9539

Thank you for your order. We appreciate your business.

Your confirmation number is 908481. We encourage you to contact us if you have any questions.

 [Printable Order Confirmation](#)

 [Online Learning Login](#)

Purchase Confirmation

Quantity	Product	Type	Price	Subtotal
1	<u>Environmental Issues and Agriculture</u>	OnDemand Webinar	\$219.00	\$219.00
<i>For Pat Kite</i>		Subtotal		\$219.00
		Shipping		\$0.00
		Total		\$219.00

Confirmation #908481

October 17, 2016

Billing Information

Regina McEvoy
 5072 Benson Road
 Union City, CA 94587
 Phone: 510-477-7503
 Fax: n/a

Shipping Information

Regina McEvoy
 5072 Benson Road
 Union City, CA 94587
 Phone: 510-477-7503
 Fax: n/a

Payment

Visa
 Regina McEvoy

Attendees

Environmental Issues and Agriculture

Regina McEvoy
 Assistant to the General Manager
reginam@unionsanitary.ca.gov
Access OnDemand Program

Sheila Tolbert

From: emilyc@csda.net
Sent: Tuesday, January 10, 2017 6:05 PM
To: Sheila Tolbert
Subject: CSDA Order Confirmation



Dear Sheila,

Thank you for your order! We are glad to be a resource for you and your agency.

Below are the details of your purchase. Please retain this email for your records.

Order Number: 58321
Order Date: Jan 10, 2017 6:02 PM
Bill To: Ms. Sheila Tolbart
Order Total: 65.00
Payment Method: Visa
Name on Card: Sheila Tolbart

Item	Price	Qty	Total
Webinar: Required Harassment Prevention for Staff/Board - Ms. Pat Kite <i>When:</i> Jan 24, 2017 - Jan 24, 2017 <i>Registration option:</i> Jan 24, 2017 10:00 AM - Webinar: Required Harassment Prevention Training	65.00	1	65.00
	Item Total		65.00
	Shipping		0.00
	Handling		0.00
	Item Grand Total		65.00
	Transaction Grand Total		65.00

Thanks again!

Connect with us:



California Special Districts Association 1112 "I" Street, Suite 200, Sacramento, CA 95814 877.924.2732 or 916.442.7887

Lorman Education Services
 P.O. Box 509
 Eau Claire, WI 54702-0509
 866-352-9539

Thank you for your order. We appreciate your business.

Your confirmation number is 927624. We encourage you to contact us if you have any questions.

 [Printable Order Confirmation](#)

 [Online Learning Login](#)

Purchase Confirmation

Quantity	Product	Type	Price	Subtotal
1	<u>Recent Developments in Graywater Reuse</u>	OnDemand Webinar	\$219.00	\$219.00
<i>For Pat Kite</i>		Subtotal		\$219.00
		Shipping		\$0.00
		Total		\$219.00

Confirmation #927624

January 5, 2017

Billing Information

Regina McEvoy
 5072 Benson Road
 Union City, CA 94587
 Phone: 510-477-7503
 Fax: n/a

Shipping Information

Regina McEvoy
 5072 Benson Road
 Union City, CA 94587
 Phone: 510-477-7503
 Fax: n/a

Payment

Visa
 Regina McEvoy

Attendees

Recent Developments in Graywater Reuse

Regina McEvoy
 Assistant to the General Manager
reginam@unionsanitary.ca.gov
 Access OnDemand Program

USP EXPENSE/PAYMENT REQUEST FORM

1. Requester

Requested by: Pat Kite Date Needed:

What type of payment are you requesting?

- Prepayment A payment that is made in advance (seminars, memberships, permits, etc.). Attach supporting documents.
- Reimbursement A payments that is for items already purchased. Receipts must be attached for all expenses.

2. Reimbursement

Make check payable to: Pat Kite

- Return Check to:
- Mail to Address:

REC'D PETTY CASH REIMBURSEMENT
 SIGNED [Signature]
 DATE 12/23/16

3. Expense Description:

Event Dates: From: 12/15/2016 To: 12/15/2016

Description: Newark Chamber of Commerce Holiday Luncheon Registration Fee

Expense Type	Account to Charge	Amount
Other (Describe above)	20-160-5220-108	42.00
Total Payment:		\$42.00

Note: Please deliver petty cash reimbursement to Regina McEvoy to give to Pat Kite.

 12152016 Newark Chamber Luncheon Registration Receipt for Pat Kite.pdf
12.9 KB

[Handwritten initials]

MANAGER APPROVAL

<input checked="" type="radio"/> <i>Approve</i>	Comments:
<input type="radio"/> <i>Reject</i>	
Approved By: paule	2016-12-20T14:09:40

ACCOUNTING

<input checked="" type="radio"/> <i>Approve</i>	Comments:
<input type="radio"/> <i>Reject</i>	
Approved By: sharonw	2016-12-20T15:04:46

REC'D PETTY CASH
REIMBURSEMENT

SIGNED

DATE

Payment Receipt

**Newark Chamber of Commerce
Newark, CA 94560**

Received From:

**Union Sanitary District - Pat Kite
Union Sanitary District
Pat Kite
5072 Benson Road
Union City, CA 94576**

Date Received	11/21/2016	Payment Amount	\$42.00
Payment Method	Check		

Invoices Paid

<u>Date</u>	<u>Number</u>	<u>Amount Applied</u>
11/21/2016	02/03-6357	-\$42.00

Online Payment Complete

Thank you for your payment. We appreciate your business.

Your confirmation number is **00005472**. We encourage you to [contact us](#) if you have any questions.

Payment Confirmation

Invoice Date: 01/26/2017
 Reference No: 3055992-2
 Invoice Total: \$0.00
 Invoice Status: Processing

Union Sanitary District
 5072 Benson Rd
 Union City, CA 945872508

Quantity	Product	Price	Subtotal
1	Kite, Pat 508189MBR - Membership	\$699.00	\$480.00
		Shipping :	\$0.00
		Discounts :	-\$0.00
		Waive :	-\$219.00
		Sub Total :	\$480.00
		Sales Tax :	\$46.80
		Total :	\$526.80
		Payments :	-\$526.80
		Invoice Total :	\$0.00

Regina McEvoy

From: mlund@cwea.org
Sent: Wednesday, February 01, 2017 11:16 AM
To: Regina McEvoy
Subject: Resend of Confirmation

Thank you for your recent order with CWEA. The details of your order follow below. Please e-mail or call us if you have any questions.

Customer's Name: Anjali Lathi
Date: 1/27/2017

Payment Code: 242031
Transaction Date: 1/25/2017

Total: 172.00
Payment Amount: \$172.00
Balance: 0.00

Bill To:

Anjali Lathi
Union Sanitary District
5072 Benson RD
Union City, CA 94587-2508

Payment Method: Credit Card

Customer	Qty	Item	Sub-Total	Discount	Paid	Balance
Lathi Anjali	1.00	CWEA Association Membership	172.00	0.00	172.00	0.00
Lathi Anjali	1.00	Local Section Membership: San Francisco Bay Section	0.00	0.00	0.00	0.00

Your CWEA Team
MemberServices@cwea.org
510-382-7800 option 4

California Water Environment Association
Protecting our water environment through education and certification
7677 Oakport Street, Suite 600
Oakland, CA 94621



Summary of the EBDA Commission Meeting

Thursday, April 20, 2017, at 9:30 a.m.

Prepared by: P. Eldredge

- Commissioners Becker, Peixoto, Johnson, Cutter, and Handley were present.
- The Consent Calendar was approved unanimously and included the Commission Meeting Minutes, List of Disbursements, and Treasurer's Report.
- Guest Speaker - The General Manager introduced Bruce Wolfe, Executive Director of the San Francisco Bay Regional Water Board. Mr. Wolfe provided an overview of the history of wastewater treatment in the SF Bay region and discussed future objectives. The wastewater community must continue coordinating with water purveyors to develop a water supply portfolio. In the future, the wastewater community's strategic planning should be consistent with other drivers as it is with nutrients. Wastewater agencies should communicate with local municipal staff to show steps that are being taken that meet local climate action plans.
- The Commission unanimously approved the reports from the Managers Advisory, Financial Management, Regulatory Affairs, Operations & Maintenance, and Ad Hoc committees. The following items were discussed:
 - **General Managers Report** - The General Manager advised the Commission that the EBDA NPDES permit is scheduled for a public hearing at the Water Board in May.
 - **Managers Advisory Committee (MAC)** – met with the General Manager on April 19, 2017. The MAC discussed the meeting of April 7, NPDES permit update, and status of the transport system inspection.
 - **Financial Management Committee** met with the General Manager on April 18, 2017 and approved the March list of disbursements and Treasurer's Reports. The Committee reviewed the State Controller's Office Special Districts Local Government Compensation report for calendar year 2016 and California Employers' Retiree Benefit Trust fund performance as of March 31, 2017. The Committee also reviewed the proposed FY 2017/18 Budget which increases overall about 10% including an increase of \$50,000 to the Renewal and Replacement Fund (RRF). Lastly, the Committee recommended full Commission approval of resolutions establishing the FY 2017/18 price of recycled water for H.A.R.D. and approving Amendment No. 1 to the Agreement with Hayward Point Eden I Limited Partnership.

Commissioner Becker addressed the Commission regarding RRF contributions and the possible changes to member agency apportionments with the EBDA JPA renewal in January 2020. Commissioner Becker expressed concern with assessing RRF contributions for expenses that may occur after the current JPA expires. Commissioner Handley requested staff provide a 20 year projection of expenses for the RRF. The General Manager will provide two alternative budget proposals at the May Commission.

- **Regulatory Affairs Committee** met with the General Manager on April 18, 2017 and discussed permit compliance. The Committee was updated on the status of the Air Toxics Proposed Rule 11-18 and the Draft NPDES permit.
- **Operations and Maintenance (O&M) Committee** met with the General Manager on April 17, 2017 and discussed the status of EBDA facilities. The Committee was updated on the status of the AEPS No. 1 Effluent Pump study, Hayward MCC replacement project, OLEPS fuel tank replacement, and Skywest pump station No. 1 pump. David Stoops reported that the EBDA system functioned without incident during the current we weather season. However, it was noted that the OLEPS diesel pumps are not running as efficiently as expected. Staff has contacted Pump Repair Service Company to provide an estimate for the repair. The Committee supports the resolution authorizing an agreement with Kennedy/Jenks Consultants for the MCC Replacement project at HEPS. Lastly, the Committee reviewed the draft RRF spending for FY 2017/18. Staff is recommending expenses totaling \$931,000, including a contingency of \$100,000.
- **Ad Hoc Committee** - The Ad Hoc Committee met with the General Manager on April 19, 2017 and discussed the outcome of the April 7 MAC workshop.
- **Items from the Commission and Staff** - Commission Becker announced that on May 18, 2017, the Bay Institute will award Oro Loma Sanitary District the Bay Hero Award for its Horizontal Levee project.
- **FY 2017/18 Commission Chair Rotation** - Commissioner Handley motioned to approve the Commission Chair Rotation appointing Marvin Peixoto, the representative from the City of Hayward, as Chair in FY 2017/2018. Pauline Russo Cutter, the representative from the City of San Leandro, will serve as Vice Chair. The motion was seconded by Commissioner Becker and carried unanimously, 5-0 (Becker, Peixoto, Cutter, Handley, Johnson; ayes).
- **Committee Preference Form and Proposed Meeting Schedule for FY 2017/18** - The Commissioners were asked to complete the Committee Preference form and return to Commissioner Peixoto by Friday, May 5, 2017. This will allow incoming Chair Peixoto time to consider Committee assignments for the May 18 Commission.
- **Resolution Establishing the Price of Recycled Water in FY 2017/18**
Commissioner Handley introduced the resolution establishing the price of recycled water in FY 2017/18 at \$10,000 per month. The motion was seconded by Commissioner Peixoto and carried unanimously, 5-0.

Ayes: Commissioners Becker, Peixoto, Cutter, Handley, and Chair Johnson
Noes: None
Absent: None
Abstain: None

- **Resolution Authorizing 1st Amendment to Agreement Authorizing Construction Over Real Property Subject to Grant of Easement By and Between East Bay Dischargers Authority and Hayward Point Eden I Limited Partnership**

Authority staff and legal counsel have worked with Hayward Point Eden I Limited Partnership on the 1st Amendment to the Agreement extending the terms for two consecutive five year renewal terms.

Commissioner Cutter introduced the resolution authorizing the 1st Amendment to the Agreement by and between East Bay Dischargers Authority and Hayward Point Eden I Limited Partnership. The motion was seconded by Commissioner Becker and carried unanimously, 5-0.

Ayes: Commissioners Becker, Peixoto, Cutter, Handley, and Chair Johnson
Noes: None
Absent: None
Abstain: None

- **Resolution Authorizing the General Manager to Enter Into a Contract With Kennedy/Jenks Consultants in the Amount Not to Exceed \$75,500 for Structural, Mechanical, and Civil Engineering Services for the Motor Control Center Replacement Project at the Hayward Effluent Pump Station**

Commissioner Cutter introduced the resolution authorizing the contract with Kennedy/Jenks Consultants in the amount not to exceed \$75,500. The motion was seconded by Commissioner Handley and carried unanimously, 5-0.

Ayes: Commissioners Becker, Peixoto, Cutter, Handley, and Chair Johnson
Noes: None
Absent: None
Abstain: None

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164217	4/20/2017	3040	EAST BAY DISCHARGERS AUTHORITY	O&M ASSESSMENT, APR-JUN 2017	\$311,095.50	\$311,095.50
164216	4/20/2017	7625	DW NICHOLSON CORP	HYPO TANKS AND PIPING REPLACEMENT	\$112,673.76	\$298,971.16
	4/20/2017	7633		PLANT FACILITIES IMPROVEMENTS	\$141,780.63	
	4/20/2017	7611		MCC & PLC REPLACEMENT - PHASE 3	\$44,516.77	
164319	4/27/2017	12051	TNT INDUSTRIAL CONTRACTORS INC	DIGESTER 1-3 GAS ISOLATION VALVES	\$94,912.60	\$94,912.60
164325	4/27/2017	2031855	WEST YOST ASSOCIATES	3RD SLUDGE DEGRITTER SYSTEM	\$3,105.00	\$42,544.22
	4/27/2017	2031777		HYPO TANKS AND PIPING REPLACEMENT	\$6,686.00	
	4/27/2017	2031776		FORCE MAIN CORROSION REPAIRS - WEST	\$32,753.22	
164243	4/20/2017	23678	RMC WATER AND ENVIRONMENT	USD PLANT MASTER PLAN	\$37,088.13	\$37,088.13
164279	4/27/2017	156491	CAROLLO ENGINEERS	NEWARK PS MOD VALVE & BOOST LINE MODS	\$28,287.05	\$28,287.05
164284	4/27/2017	201502313	COVELLO GROUP INC	FREMONT & PASEO PADRE LS IMPROVEMENTS	\$3,973.00	\$22,001.13
	4/27/2017	201303535		THICKENER CONROL BUILDING IMPROVEMENTS PHASE II	\$18,028.13	
164214	4/20/2017	95091	DEGENKOLB ENGINEERS	SEISMIC STUDY	\$18,649.84	\$18,649.84
164233	4/20/2017	27720	MARK THOMAS & CO, INC	TEMP CONSTRUCTION INSPECTOR - 1/31 - 2/24/17	\$17,584.16	\$17,584.16
164280	4/27/2017	1654	CASA	2017 BAB2E COALITION MEMBERSHIP DUES	\$16,500.00	\$16,500.00
164254	4/20/2017	533620170322	US BANK CORP PAYMENT SYSTEM	MONTHLY CAL-CARD STMT - MAR 2017	\$15,824.80	\$15,824.80
164215	4/20/2017	10151091903	DELL MARKETING LP C/O DELL USA	CONTROL ROOM VIEW NODE MONITORS	\$13,947.18	\$13,947.18

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164196	4/20/2017	136059	ADVANCED CHEMICAL TRANSPORT	HAZARDOUS MATERIAL MANAGEMENT	\$8,902.79	\$12,898.79
	4/20/2017	136053		HAZARDOUS MATERIAL MANAGEMENT	\$3,996.00	
164263	4/27/2017	66920	3T EQUIPMENT COMPANY INC	20 PIPE PATCH KITS	\$11,885.93	\$11,885.93
164209	4/20/2017	30527	CALIFORNIA WATER TECHNOLOGIES	43,240 LBS FERROUS CHLORIDE	\$3,846.72	\$11,398.87
	4/20/2017	30676		42,600 LBS FERROUS CHLORIDE	\$3,700.63	
	4/20/2017	30655		43,940 LBS FERROUS CHLORIDE	\$3,851.52	
164256	4/20/2017	903855	VINCENT ELECTRIC MOTOR CO	NPS 5 HIDROSTAL MOTOR REPAIR	\$11,362.04	\$11,362.04
164239	4/20/2017	103771	MUNIQUEIP, LLC	MIX PUMP 6A REBUILD	\$10,949.59	\$10,949.59
164232	4/20/2017	1970	LIFTOFF, LLC	O365 GUIDED IMPLEMENTATION	\$8,532.39	\$8,532.39
164206	4/20/2017	11288092	BROWN & CALDWELL CONSULTANTS	STANDBY POWER SYSTEM UPGRADE	\$7,385.04	\$7,385.04
164275	4/27/2017	212223	BURKE, WILLIAMS & SORENSON LLP	GENERAL LEGAL/CIP - FEBRUARY 2017	\$2,030.60	\$7,121.40
	4/27/2017	212224		RECORDS RETENTION POLICY - FEBRUARY 2017	\$5,090.80	
164221	4/20/2017	237557	FRANK A OLSEN COMPANY	1 MIX PUMP 1 DICHARGE 16" VALVE REPLACEMENT	\$6,436.26	\$6,436.26
164321	4/27/2017	809090	UNIVAR USA INC	4800 GALS SODIUM HYPOCHLORITE	\$2,115.10	\$6,432.99
	4/27/2017	808554		5003 GALS SODIUM HYPOCHLORITE	\$2,204.55	
	4/27/2017	808558		4796 GALS SODIUM HYPOCHLORITE	\$2,113.34	

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164199	4/20/2017	170301151	AIRTECH MECHANICAL INC	HVAC QUARTERLY MAINTENANCE	\$1,008.75	\$6,127.44
	4/20/2017	170301150		HVAC CONTRACT - FMC BUILDINGS AND BOYCE	\$540.00	
	4/20/2017	170301152		HVAC QUARTERLY MAINTENANCE BLDG 70, 82 & 83	\$1,646.25	
	4/20/2017	170201099		AIRTECH COGEN BUILDING AIR HANDLER	\$2,340.19	
	4/20/2017	170301130		HVAC MAINTENANCE: BLDG 83 ELEC SHOP	\$592.25	
164241	4/20/2017	7866	PULTE HOME CORPORATION	REFUND # 19862	\$2,500.00	\$6,000.00
	4/20/2017	7797		REFUND # 19861	\$1,000.00	
	4/20/2017	8032		REFUND # 19863	\$2,500.00	
164230	4/20/2017	21587	IEDA INC	LABOR RELATIONS CONSULTING 04/01/17 - 06/30/17	\$5,850.00	\$5,850.00
164285	4/27/2017	275698	CURTIS & TOMPKINS, LTD	10 LAB SAMPLE ANALYSIS	\$600.00	\$5,280.00
	4/27/2017	275662		100 LAB SAMPLE ANALYSIS	\$4,185.00	
	4/27/2017	275542		30 LAB SAMPLE ANALYSIS	\$495.00	
164266	4/27/2017	170301164	AIRTECH MECHANICAL INC	HVAC PREVENTIVE MAINTENANCE BOYCE PS	\$286.00	\$5,032.00
	4/27/2017	170201074		HVAC SERVICE: BLDG 82	\$4,746.00	
164323	4/27/2017	6903	VON EUW TRUCKING	4 HRS DUMP FEES, 95.99 TONS 3/4 CLASS II & 7.5 TRANSFER FEES	\$4,557.45	\$4,557.45
164237	4/20/2017	8182	MISSION PEAK CO./PALM AVENUE	REFUND # 19864	\$2,500.00	\$4,500.00
	4/20/2017	8454		REFUND # 19865	\$2,000.00	
164252	4/20/2017	807633	UNIVAR USA INC	5000 GALS SODIUM HYPOCHLORITE	\$2,203.23	\$4,406.90
	4/20/2017	807376		5001 GALS SODIUM HYPOCHLORITE	\$2,203.67	

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164306	4/27/2017	117448	R-2 ENGINEERING INC	MOYNO PUMP PARTS	\$4,153.21	\$4,153.21
164303	4/27/2017	1127290	POLYDYNE INC	41,540 LBS CLARIFLOC WE-539	\$3,920.75	\$3,920.75
164219	4/20/2017	192100	EXAMINETICS	2017 HEARING AND RESPIRATOR TESTS	\$3,785.00	\$3,910.00
	4/20/2017	191944		5 2017 HEARING AND RESPIRATOR TESTS	\$125.00	
164297	4/27/2017	8155	JOHN'S INCREDIBLE PIZZA	REFUND # 19885	\$3,895.00	\$3,895.00
164278	4/27/2017	30729	CALIFORNIA WATER TECHNOLOGIES	42,240 LBS FERROUS CHLORIDE	\$3,603.03	\$3,603.03
164317	4/27/2017	20170331	STATE BOARD OF EQUALIZATION	SALES & USE TAX 01/17-03/17	\$3,469.00	\$3,469.00
164251	4/20/2017	504635	TRACKER, A DIV OF C2, LLC	PORTFOLIO ACCOUNTING & REPORTING ANNUAL	\$3,420.00	\$3,420.00
164295	4/27/2017	3K7427	HARRINGTON INDUSTRIAL PLASTICS	ASTD PARTS & MATERIALS	\$2,777.19	\$3,354.94
	4/27/2017	3K7428		ASTD PARTS & MATERIALS	\$577.75	
164324	4/27/2017	8380	VPI ITF HART PACIFIC COMMONS	REFUND # 19900	\$3,300.00	\$3,300.00
164314	4/27/2017	120170405	SIEGEL & STRAIN ARCHITECTS	FRONT DESK REDESIGN	\$3,237.50	\$3,237.50
164236	4/20/2017	609434	MISSION CLAY PRODUCTS LLC	ASTD SPOT REPAIR COUPLINGS	\$3,013.29	\$3,013.29

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164312	4/27/2017	1777120008	SAN LEANDRO ELECTRIC SUPPLY	HEADWORKS ACTUATOR REPLACEMENT	\$569.80	\$3,012.68
	4/27/2017	1777927006		ELECTRICAL SUPPLIES	\$73.51	
	4/27/2017	1777927005		ELECTRICAL SUPPLIES	\$522.76	
	4/27/2017	1777120006		HEADWORKS ACTUATOR REPLACEMENT	\$541.72	
	4/27/2017	1777927004		ELECTRICAL SUPPLIES	\$201.01	
	4/27/2017	1777927003		ELECTRICAL SUPPLIES	\$134.33	
	4/27/2017	1777120009		HEADWORKS ACTUATOR REPLACEMENT	\$653.54	
	4/27/2017	1777120007		HEADWORKS ACTUATOR REPLACEMENT	\$284.90	
	4/27/2017	1777927002		ELECTRICAL SUPPLIES	\$31.11	
164326	4/27/2017	64452	WEST-MARK	TANK REPAIR ON T3292	\$3,008.01	\$3,008.01
164208	4/20/2017	5653975	BUSINESS & LEGAL RESOURCE	BLR 3-YEAR SUBSCRIPTION	\$2,995.00	\$2,995.00
164288	4/27/2017	327056	EXPONENT INC.	COGEN ENGINE REBUILD	\$2,907.00	\$2,907.00
164245	4/20/2017	1777120001	SAN LEANDRO ELECTRIC SUPPLY	HEADWORKS ACTUATOR REPLACEMENT	\$526.95	\$2,766.33
	4/20/2017	1777927001		ELECTRICAL SUPPLIES	\$272.40	
	4/20/2017	1777120005		HEADWORKS ACTUATOR REPLACEMENT	\$1,966.98	
164276	4/27/2017	39612	CALCON SYSTEMS	PLANT FLOW METER CALIBRATIONS	\$2,650.00	\$2,650.00
164272	4/27/2017	9506561	AT&T	SERV: 03/01/17 - 03/31/17	\$0.33	\$2,530.32
	4/27/2017	9522609		SERV: 03/10/17 - 04/09/17	\$2,529.99	
164286	4/27/2017	8968	DEPENDABLE ROOTER & PLUMBING	REFUND # 19887	\$2,500.00	\$2,500.00

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164207	4/20/2017	212222	BURKE, WILLIAMS & SORENSON LLP	GENERAL LEGAL - FEBRUARY 2017	\$2,316.60	\$2,316.60
164302	4/27/2017	XCTZ01X	PACHECO BROTHERS GARDENING INC	WEED ABATEMENT WORK APRIL 2017	\$915.00	\$2,280.00
	4/27/2017	XCTZ01W		LANDSCAPE MAINTENANCE SERVICES APRIL 2017	\$1,365.00	
164316	4/27/2017	50130	SPECTER INSTRUMENTS INC	WIN911 UPGRADE FROM PRO TO ENTERPRISE	\$2,270.00	\$2,270.00
164225	4/20/2017	9383864577	GRAINGER INC	ASTD PARTS & MATERIALS	\$235.29	\$2,259.94
	4/20/2017	9383955391		ASTD PARTS & MATERIALS	\$1,408.68	
	4/20/2017	9383955383		10 GRINDNG WHEELS	\$62.12	
	4/20/2017	9387924336		2 EXPANSION PLUGS	\$61.29	
	4/20/2017	9385540829		4 BATTERIES	\$237.94	
	4/20/2017	9386770565		ASTD PARTS & MATERIALS	\$254.62	
164260	4/20/2017	2031757	WEST YOST ASSOCIATES	FORCE MAIN CORROSION REPAIRS - WEST	\$2,214.50	\$2,214.50
164267	4/27/2017	1768	ALAMEDA COUNTY TREASURER	DISC WORKSHOP FOR ET & COACHES	\$2,185.00	\$2,185.00
164309	4/27/2017	7667395300	RS HUGHES CO INC	SAFETY SUPPLIES	\$1,096.99	\$2,092.70
	4/27/2017	7667395301		SAFETY SUPPLIES	\$995.71	
164210	4/20/2017	HKD5046	CDW GOVERNMENT LLC	O365 BACKUP ONLINE APPLICATION	\$1,860.00	\$1,860.00

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164299	4/27/2017	25062418	MCMaster SUPPLY INC	ASTD PARTS & MATERIALS	\$299.56	\$1,722.66
	4/27/2017	24633802		1 DISPENSER KIT FOR STRAPPING	\$693.42	
	4/27/2017	24747670		ASTD PARTS & MATERIALS	\$79.81	
	4/27/2017	24910662		ASTD PARTS & MATERIALS	\$249.53	
	4/27/2017	26124389		1 POLYESTER MESH FILTER BAG	\$16.71	
	4/27/2017	26176332		2 8" LEVER ARM FOR TOILET TANK	\$17.26	
	4/27/2017	24675741		ASTD FITTINGS	\$123.12	
	4/27/2017	24838586		1 EXTRA-RIGID PARTS BASKET	\$243.25	
164249	4/20/2017	20170499	TELEDYNE ISCO INC	ASTD SAMPLING SUPPLIES	\$1,694.54	\$1,694.54
164201	4/20/2017	186158045949	AMAZON.COM LLC	LED'S AT 79 CATWALK	\$1,091.55	\$1,668.81
	4/20/2017	20170310		03/17 - ASTD OFFICE SUPPLIES	\$577.26	
164318	4/27/2017	4174	TAP MASTER INC	HOT TAP MIX PUMP 1 DRAIN LINE 6"	\$1,596.00	\$1,596.00
164261	4/20/2017	27237	WILEY PRICE & RADULOVICH LLP	LABOR & EMPLOYMENT LAW FEES	\$1,533.50	\$1,533.50
164231	4/20/2017	201265866	IRON MOUNTAIN	DATA/MEDIA OFF-SITE STORAGE - MAR 2017	\$268.33	\$1,500.17
	4/20/2017	NRA3403		OFF-SITE STORAGE AND SERVICE - MAR 2017	\$325.94	
	4/20/2017	NRG1945		OFF-SITE STORAGE AND SERVICE - MAR 2017	\$905.90	
164240	4/20/2017	2236	PEOPLEADMIN, INC	THRIVE SUBSCRIPTION AND SERVICES	\$1,500.00	\$1,500.00
164223	4/20/2017	1841078558	GOODYEAR COMM TIRE & SERV CTRS	2 TIRES	\$760.46	\$1,421.49
	4/20/2017	1841078660		4 TIRES	\$661.03	

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164197	4/20/2017	66840	AIR & TOOL ENGINEERING COMPANY	PNEUMATIC SAW	\$1,236.09	\$1,367.70
	4/20/2017	66811		TOOL REPAIR - 133 RIVET BUSTER	\$131.61	
164322	4/27/2017	37703	VALLEY OIL COMPANY	1 DRUM PELLA OIL	\$1,272.80	\$1,272.80
164298	4/27/2017	14279	LOOKINGPOINT INC	ANNUAL SUPPORT FOR PHONE AND NETWORK - APR 2017	\$1,225.00	\$1,225.00
164226	4/20/2017	1775391	HANSON AGGREGATES INC	5.90 TONS 1/2 MED TYPE A AC-R	\$446.50	\$1,207.25
	4/20/2017	1774409		10.13 TONS 1/2 MED TYPE A AC-R	\$760.75	
164213	4/20/2017	20170325	DALE HARDWARE INC	03/17 - ASTD PARTS & MATERIALS	\$1,147.38	\$1,147.38
164195	4/20/2017	66898	3T EQUIPMENT COMPANY INC	4 LEADER HOSES	\$1,132.27	\$1,132.27
164259	4/20/2017	38438	WECO INDUSTRIES LLC	ASTD TRACTOR CAMERA REPAIR PARTS	\$1,100.61	\$1,100.61
164248	4/20/2017	12350	THE SPYGLASS GROUP LLC	CONTINGENCY CONSULTING FEE FOR MONTHLY SERVICE	\$1,060.08	\$1,060.08
164200	4/20/2017	5160301	ALL INDUSTRIAL ELECTRIC SUPPLY	1 BORE SCOPE	\$792.05	\$1,048.56
	4/20/2017	5160401		2 BATTERY PACKS	\$256.51	
164315	4/27/2017	8122768042017	SIERRA SPRING WATER COMPANY	BOTTLESS COOLERS RENTAL	\$242.20	\$1,033.00
	4/27/2017	4868173042017		WATER SERVICE 03/22/17 - 04/20/17	\$790.80	
164308	4/27/2017	8913	ROOTER HERO	REFUND # 19886	\$500.00	\$1,000.00
	4/27/2017	8987		REFUND # 19884	\$500.00	
164311	4/27/2017	31517	SAE COMMUNICATIONS	BOARD OF DIRECTORS DISTRICT MESSAGING TRAINING	\$1,000.00	\$1,000.00

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164274	4/27/2017	11853840	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$122.96	\$956.29
	4/27/2017	11862970		ASTD OFFICE SUPPLIES	\$4.75	
	4/27/2017	11735290		ASTD OFFICE SUPPLIES	\$53.68	
	4/27/2017	11206810-C		CREDIT 2 DOCUMENT FRAMES	\$-30.78	
	4/27/2017	11853841		ASTD OFFICE SUPPLIES	\$12.61	
	4/27/2017	11622790		1 FILING CABINET FOR GENERAL MANAGER'S OFFICE	\$417.99	
	4/27/2017	11860870		1 TONER	\$192.05	
	4/27/2017	11601740C		CREDIT 1 PLANNER	\$-26.39	
	4/27/2017	11860460		ASTD OFFICE SUPPLIES	\$17.00	
	4/27/2017	11852640		ASTD OFFICE SUPPLIES	\$192.42	
164301	4/27/2017	02036459	NEWARK CHAMBER OF COMMERCE	MEMBERSHIP RENEWAL FEE - 4/1/17 - 4/1/18	\$880.00	\$880.00
164291	4/27/2017	9972	FREMONT EXPRESS COURIER SVC	COURIER SERVICES: MAR 2017 DAILY MAIL/2 BOARDMEMBER DELIVEF	\$865.00	\$865.00
164271	4/27/2017	9258	AMERICAN DISCOUNT SECURITY	03/16/17 - 03/31/17 GUARD AT DISTRICT GATE	\$828.00	\$828.00
164277	4/27/2017	238742	CALIFORNIA DYNAMICS CO	10 ISOLATOR SPRINGS	\$824.33	\$824.33
164238	4/20/2017	24005067	MOTION INDUSTRIES INC	1 HEAVY DUTY SHEAVE	\$346.56	\$810.41
	4/20/2017	24005338		ASTD NUTS & BOLTS	\$288.82	
	4/20/2017	24004958		ASTD SHEAVES & BUSHINGS	\$175.03	
164228	4/20/2017	602479155	HILLYARD/SAN FRANCISCO	ASTD JANITORIAL SUPPLIES	\$732.44	\$732.44

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164222	4/20/2017	1083886457	G&K SERVICES CO	ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$16.27	\$715.89
	4/20/2017	1083886456		UNIFORM LAUNDERING SERVICE	\$459.70	
	4/20/2017	1083886455		UNIFORM LAUNDERING & RUGS	\$239.92	
164257	4/20/2017	8048076955	VWR INTERNATIONAL LLC	LAB SUPPLIES	\$419.18	\$695.39
	4/20/2017	8048044204		LAB SUPPLIES	\$62.79	
	4/20/2017	8048086921		1CS FILTERS	\$95.33	
	4/20/2017	8048108020		1 COD SOLUTION	\$23.77	
	4/20/2017	8048086920		1 EA SOLAR CALCULATOR & SULFURIC ACID	\$34.66	
	4/20/2017	8048076954		LAB SUPPLIES	\$59.66	
164307	4/27/2017	1329089	ROCHESTER MIDLAND CORPORATION	HOT WATER LOOP SERVICE	\$687.46	\$687.46
164218	4/20/2017	903050932	EVOQUA WATER TECHNOLOGIES	DI WATER SYSTEM	\$345.00	\$675.00
	4/20/2017	903037904		DI WATER SYSTEM	\$330.00	
164293	4/27/2017	1083889164	G&K SERVICES CO	UNIFORM LAUNDERING SERVICE	\$407.20	\$663.31
	4/27/2017	1083889165		ASTD DUST MOPS, WET MOPS & TERRY TOWELS	\$16.27	
	4/27/2017	1083889163		UNIFORM LAUNDERING & RUGS	\$239.84	
164198	4/20/2017	9944106580	AIRGAS NCN	CYLINDER RENTAL	\$646.80	\$646.80
164310	4/27/2017	2983896001	S & S SUPPLIES & SOLUTIONS	SAFETY SUPPLIES	\$635.45	\$635.45
164283	4/27/2017	39655	CLAREMONT BEHAVIORAL SERVICES	MAY 2017 EAP PREMIUM	\$634.80	\$634.80

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164265	4/27/2017	9800375153	AIRGAS NCN	4 CYL ARGON	\$632.31	\$632.31
	4/27/2017	9058128505		4 CYL ARGON	\$1,563.56	
	4/27/2017	9701447008		CREDIT 4 CYL ARGON	\$-1,563.56	
164212	4/20/2017	275428	CURTIS & TOMPKINS, LTD	1 LAB SAMPLE ANALYSIS	\$60.00	\$600.00
	4/20/2017	275399		16 LAB SAMPLE ANALYSIS	\$230.00	
	4/20/2017	275168		7 LAB SAMPLE ANALYSIS	\$195.00	
	4/20/2017	274496		8 LAB SAMPLE ANALYSIS	\$115.00	
164300	4/27/2017	170452	METROMOBILE COMMUNICATIONS INC	ANNUAL RADIO SERVICE - APR 2017	\$582.75	\$582.75
164294	4/27/2017	9391979292	GRAINGER INC	ASTD PARTS & MATERIALS	\$174.06	\$582.31
	4/27/2017	9395615363		ASTD PARTS & MATERIALS	\$122.85	
	4/27/2017	9395615355		1 SOCKET	\$17.96	
	4/27/2017	9396121361		1 BUCKET CONCRETE REPAIR	\$267.44	
164246	4/20/2017	20170418	JOHN SEO	EXP REIMB: CWEA CERTIFICATE RENEWAL	\$83.00	\$548.00
	4/20/2017	20170418.1		EXP REIMB: WEBINAR REGISTRATION	\$465.00	
164290	4/27/2017	127522	FITGUARD, INC.	PREVENTATIVE MAINTENANCE - EXERCISE CLUB EQUIPMENT	\$516.32	\$516.32
164244	4/20/2017	8932	ROOTER HERO	REFUND # 19868	\$500.00	\$500.00
164229	4/20/2017	32317	HMC ANALYTICAL INSTRUMENTATION	1 GAS DETECTION PUMP KIT	\$483.35	\$483.35
164320	4/27/2017	894859050	TPX COMMUNICATIONS	WIRELESS INTERNET BACKUP - APRIL	\$480.00	\$480.00

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164296	4/27/2017	1046534	INDUSTRIAL SAFETY SUPPLY	2 CYLINDERS CAL-GAS	\$364.66	\$471.91
	4/27/2017	1046438		10 DUST FILTERS	\$107.25	
164282	4/27/2017	59323	CITYLEAF INC	PLANT MAINTENANCE - APR 2017	\$431.86	\$431.86
164204	4/20/2017	20094100	BECK'S SHOES	SAFETY SHOES: M. LUBINA	\$204.29	\$408.58
	4/20/2017	20071900		SAFETY SHOES: R. LEBON	\$204.29	
164268	4/27/2017	1453	ALAMEDA COUNTY TREASURER	132 ASSESSOR MAPS	\$396.00	\$396.00
164250	4/20/2017	3003153576	THYSSENKRUPP ELEVATOR CORP	PHONE MONITORING ELEVATOR APR 2017 - MAR 2018	\$383.04	\$383.04
164304	4/27/2017	129369	PREFERRED ALLIANCE INC	MARCH 2017 SERVICE FEE	\$277.20	\$277.20
164242	4/20/2017	13517G	R & S ERECTION OF S ALAMEDA	EXIT GATE NOT FULLY CLOSING	\$260.10	\$260.10
164220	4/20/2017	10886	CITY OF FOSTER CITY	1 JOB POSTINGS	\$250.00	\$250.00
164247	4/20/2017	20170402	SPOK INC	APRIL 2017 PAGER SERVICE	\$244.06	\$244.06
164313	4/27/2017	1394	SERVICEMASTER JANITORIAL SVCS	APRIL 2017 JANITORIAL SERVICES	\$240.00	\$240.00
164270	4/27/2017	19161	ALLIED FLUID PRODUCTS CORP	ASTD PARTS & MATERIALS	\$216.90	\$216.90
164281	4/27/2017	20170426	RAYMOND CHAU	EXP REIMB: CIP TEAM QTLY SAFETY INCENTIVE	\$200.00	\$200.00
164273	4/27/2017	1041919	BAY AREA NEWS GROUP EAST BAY	AD: SIGNIFICANT VIOLATOR	\$181.35	\$181.35
164202	4/20/2017	7009792941	APPLIED INDUSTRIAL TECHNOLOGIE	ASTD PARTS & MATERIALS	\$126.59	\$155.74
	4/20/2017	7009897213		ASTD PARTS & MATERIALS	\$29.15	
164262	4/20/2017	12045429058R	WRA ENVIRONMENTAL CONSULTANTS	ALVARADO EQUALIZATION STORAGE BASIN	\$150.00	\$150.00
164258	4/20/2017	20170419	JANINNE WARD	EXP REIMB: LUNCH FOR Y FANG'S RETIREMENT	\$127.80	\$127.80

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
164203	4/20/2017	1438	AUTOMATED NETWORK CONTROLS	SCADA/PLC SUPPORT SERVICES	\$125.00	\$125.00
164292	4/27/2017	116526611	FREMONT URGENT CARE CENTER	4 HEARING TESTS	\$120.00	\$120.00
164235	4/20/2017	23570995	MCMASTER SUPPLY INC	4 BRASS ON/OFF VALVES	\$47.84	\$86.57
	4/20/2017	23886067		1 HOSE COCK	\$38.73	
164234	4/20/2017	77848890	MATHESON TRI-GAS INC	CYLINDER RENTAL - MARCH 2017	\$85.32	\$85.32
164224	4/20/2017	83026	GORILLA METALS	ASTD METAL, STEEL, STAINLESS & ALUMINUM	\$80.77	\$80.77
164205	4/20/2017	11844270	BLAISDELL'S	ASTD OFFICE SUPPLIES	\$17.55	\$79.38
	4/20/2017	11847350		ASTD OFFICE SUPPLIES	\$10.42	
	4/20/2017	11847480		ASTD OFFICE SUPPLIES	\$51.41	
164264	4/27/2017	3005C13411	ACCESS OMNICARE	DOT PHYSICAL & MEDICAL CERTIFICATE	\$75.00	\$75.00
164227	4/20/2017	3K7258	HARRINGTON INDUSTRIAL PLASTICS	50 FEET TUBING	\$71.08	\$71.08
164287	4/27/2017	615320170418	DISH NETWORK	MAY 2017 - SERVICE FEE	\$55.90	\$55.90
164269	4/27/2017	20170421	ALAMEDA COUNTY TREASURER	FORCE MAIN CORROSION REPAIRS - WEST: EXEMPTION	\$50.00	\$50.00
164211	4/20/2017	433380	CHEMETRICS INC	1 SULFATE VACU-VIALS	\$46.99	\$46.99
164255	4/20/2017	9783004715	VERIZON WIRELESS	WIRELESS SERV 03/02/17-04/01/17	\$26.62	\$26.62
164305	4/27/2017	774581.1	PUBLIC SURPLUS AUCTION	SURPLUS SALE FEE: 1 ELECTRIC CART-BALANCE DUE	\$22.75	\$22.75
164253	4/20/2017	9853137.0	UPS - UNITED PARCEL SERVICE	SHIPPING CHARGES W/E 02/25/17	\$21.87	\$21.87
164289	4/27/2017	1259691	FERGUSON ENTERPRISES, INC.	ASTD PARTS & MATERIALS	\$18.66	\$18.66

**UNION SANITARY DISTRICT
CHECK REGISTER
4/15/2017-04/28/2017**

Check No.	Date	Invoice No.	Vendor	Description	Invoice Amt	Check Amt
Invoices:				Checks:		
Credit Memos :		3	-1,620.73			
\$0 - \$1,000 :		138	43,025.56	\$0 - \$1,000 :	57	23,536.06
\$1,000 - \$10,000 :		68	201,211.38	\$1,000 - \$10,000 :	58	181,018.49
\$10,000 - \$100,000 :		14	372,289.44	\$10,000 - \$100,000 :	15	365,834.33
Over \$100,000 :		3	565,549.89	Over \$100,000 :	2	610,066.66
Total:		226	1,180,455.54	Total:	132	1,180,455.54

Uploaded: Tue, Apr 18, 2017, 1:56 pm

Effort to retire Palo Alto sludge incinerators moves ahead

Mountain View to share in cost of new sewage treatment facility

by Gennady Sheyner / Palo Alto Weekly



Two incinerators in Palo Alto will be decommissioned and replaced with a \$23 million sludge dewatering and load-out facility under a contract approved by the City Council on April 17. Weekly file photo.

Seeking to shed Palo Alto's status as one of only two California cities that still burn their sludge, the City Council swiftly approved early Tuesday morning the construction of a nearly \$23 million facility that would allow it to decommission the two incinerators in the Baylands.

With no debate and little fanfare, the council took a significant step toward transforming how the city treats its organic waste when it approved a contract with C. Overaa and Company to construct a sludge dewatering and load-out facility at the Regional Water Quality Control Plant in the Baylands. The city will share the costs of building and operating the new facility with its partners in the treatment plant: Mountain View, Los Altos, Los Altos Hills, the East Palo Alto Sanitary District and Stanford University.

According to a report from Public Works Department, the city is responsible for 38 percent of the costs for the project, which is expected to be completed in 2019. Once the facility is built, the city will be able to ship out its sewage to treatment plants that would convert the waste into energy. Further down the line, Palo Alto officials hope to construct a local waste-to-energy facility such as the anaerobic digestion plant near the wastewater treatment plant.

The council's quick discussion and unanimous approval of the contract early Tuesday followed years of staff analysis and design work that led up to the vote. Even though the new facility would be 50-feet tall and would stand in the Baylands, the project went ahead with broad community and council consensus, largely because it would allow the city to finally retire the polluting incinerators.

"We need to move forward on this," Mayor Greg Scharff said just before the vote. "We've been working on this for a long time."

In addition to the \$22.9-million construction contract with Overaa, the council approved a \$2 million construction-management contract with Tanner Pacific.

In addition to getting contributions from partner agencies, Palo Alto is also banking on a state loan to help finance the project. As part of its Tuesday vote, the council authorized staff to enter into a funding agreement with the California State Water Resources Board for a \$30-million low-interest loan. The state money would be allocated to the project as part of the board's State Revolving Fund program, which supports wastewater projects.

Currently, the plant in Palo Alto is one of only two still operating in the state (the other one is in the Central Contra Costa Sanitary District). Local environmentalists have long called for the city to switch to a cleaner method for disposing of local sewage.

San Francisco Chronicle

Air pollution agency focuses on warming

District adopts plan likely to alter lifestyles in Bay Area

By Kurtis Alexander

April 20, 2017

The Bay Area's little-known pollution control district jumped into the fight against climate change Wednesday with a first-of-its-kind regional plan that promises big changes in residents' daily lives.

With calls for charging tolls to drive on freeways, doing away with gas heat and even urging meat-free meals, the agency is reaching beyond its usual targets of oil refineries and diesel trucks to push for cuts in greenhouse gases on a much broader scale.

"When thinking about the scale of climate change, we realized this had to be an all-in approach, everything in on the table," said Abby Young, climate protection manager for the Bay Area Air Quality Management District.

For its 62-year history, the air district's main job has been policing the nine-county Bay Area for dirty skies, declaring "Spare the Air" days when ozone and particulate matter levels reached unhealthy levels. Bay Area residents were affected most directly when the agency banned fireplace blazes on pollution-clogged winter nights and won the power to levy fines against violators.

The agency's new "Spare the Air, Cool the Climate" strategy makes global warming an equal priority, by targeting heat-trapping emissions.

The plan, approved Wednesday by a unanimous vote of the agency's governing board at a meeting in San Francisco, lays out 85 measures that seek to reduce pollutants from industry, transportation, agriculture, homes and businesses.

No regulations take effect immediately, only a commitment to move forward. Some can be implemented by the district directly, but many will require joint action with other agencies. The district committed \$4.5 million to initiate such partnerships.

“Reducing air pollution and greenhouse gases is everyone’s responsibility,” said Jack Broadbent, the district’s executive officer. “How we live and travel, what we buy, how we heat our homes, and what we consume all impact air quality, our health and produce greenhouse gases that impact our planet and ultimately, our quality of life.”

Under the plan, the agency will use its unilateral authority to tighten emission rules for oil refineries in the East Bay. Alongside cars and trucks, industry is the region’s top source of pollution.

Landfills, dairies and water treatment plants are also targeted for new restrictions.

To address transportation, the district will work alongside cities and transit agencies to encourage greener travel —making roads friendlier for electric cars with more charging stations and encouraging regional ride-shares and carpools.

The agency will also look to extend its “Spare the Air” day messaging to encourage slower driving, in hopes of reducing vehicle emissions on smoggy days. It will also seek to discourage overall car use by advocating for freeway tolls during high-traffic times, reductions in on-street parking and a higher gasoline tax.

The plan also calls on the district to explore new rules, and potential prohibitions, on fossil fuel-based heating and water-heating systems in homes and businesses. Agency funds could be used to create rebates for swapping out old, polluting appliances. Residential solar installations would also be encouraged through rebates.

Finally, the district is eyeing a campaign to promote eating less meat, as meat production is tough on the planet in a number of ways.

“That doesn’t mean everyone has to become vegan,” Young said. “We just have to do everything we can, and probably changing our diets is part of that.”

The plan comes as California leaders pledge aggressive action on climate change, a resolve that has been strengthened with the Trump administration’s efforts to rewrite federal environmental policy in hopes of encouraging economic growth. Bay Area air quality officials hope to set an example of what can be done regionally to take up the battle.

Several cities and counties have introduced programs to cut greenhouse gases, including San Francisco, but few have the regulatory power and reach of the state-chartered air district.

“If not here, where is there another location better suited to take on this leadership role?” Young said.

The district’s goal is to reduce emission of ozone-causing pollutants in the Bay Area by at least 21 tons per day and particulate matter, or soot, by 3 tons per day. It envisions reducing greenhouse gas emissions by 4.4 million metric tons by 2030 — the equivalent of removing more than 900,000 fossil-fuel-burning vehicles from the road each year.

Officials with the air-quality district say such reductions would save residents and local governments more than \$1 billion a year, much of it in reduced health care costs.

Hundreds of people wrote to the air-quality district in advance of Wednesday’s meeting to support the plan. Not everyone was on board, however: Some critics asked what good a local program would do if other states and nations don’t take similar actions to cut heat-trapping gases.

“If the emissions are reduced here but not elsewhere, climate change is still here,” said Steven Young, a Chevron employee who spoke at the district’s meeting. “And it just gets worse.”

Kurtis Alexander is a San Francisco Chronicle staff writer.

Email: kalexander@sfchronicle.com Twitter: @kurtisalexander

EAST BAY TIMES

Contra Costa residents could face 7 percent hike in sewer rates

By [Sam Richards](#) | srichards@bayareanewsgroup.com |

PUBLISHED: April 19, 2017 at 3:35 pm | UPDATED: April 20, 2017 at 5:48 am

PACHECO — The Central Contra Costa Sanitary District is set to decide Thursday afternoon whether to raise sewer rates 7 percent for residential and commercial customers in July, and another 7 percent in July 2018.

The sought increases are tied to Central Sanitary's plan, over the next 10 years, to spend \$873 million to replace aging pipes, treatment equipment and other infrastructure; to add sewage-treatment capacity ahead of expected residential and business growth in the area; to meet requirements of future environmental regulations; and for future projects to improve energy efficiency. The rate hikes, if approved, would generate \$12.1 million in the first two years.

Central Sanitary spokeswoman Emily Barnett said Wednesday the added revenue is needed to keep its system of pipelines, treatment facilities and related technology as up-to-date as possible. "We believe our customers expect a certain service level, and that we need a system in place that serves them," she said.

For a single-family house or mobile home, the current \$503-a-year sewer service fee would go up to \$538 — an increase of about \$3 a month — starting July 1 if the rate hike is approved. Apartment-unit rates, now \$487 per year, would go up to \$521 annually starting July 1 and to \$558 on July 1, 2018.

Rate increases for commercial customers would be more complex, Barnett said, based on the square footage of the business, the amount of water they use and the level of treatment that water needs. For example, restaurants, school cafeterias and dairy-related customers, she said, demand a higher level of treatment, based largely on the amount of fats in their wastewater.

Other area sewer districts are working on rate hikes, too, for reasons similar to Central Sanitary's. The Delta Diablo Sanitary District, which treats sewage for Antioch, Pittsburg and Bay Point, is preparing to ask for a 6.5 percent rate increase; Delta Diablo spokeswoman Angela Lowrey said the initial public hearings for that process haven't started there yet.

"We need to upgrade our plant, at a cost of \$125 million," said Lowrey, adding that all districts have to anticipate maintenance and modernization costs. "We anticipate regulatory changes that will force us to change the way we treat water."

The Dublin San Ramon Services District, which treats wastewater from Pleasanton, Dublin and parts of San Ramon and Dougherty Valley, is preparing its obligatory "Prop 218" notice for all

district customers concerning potential rate increases (or drops) over the next five years. Sue Stephenson, a Dublin San Ramon district spokeswoman, said the district will propose an increase in residential rates from the current \$382.38 a year to \$397.38 starting in July, a jump of about 4 percent. That public hearing is scheduled for June 20.

The public hearing on Central Sanitary's wastewater treatment rate increase request starts at 1:30 p.m. Thursday in the meeting room at the district offices, 5019 Imhoff Place (off Imhoff Drive) in Pacheco.

EAST BAY TIMES

Improvements planned

Sewer rates rising 5.5 percent in July

Central Contra Costa district plans 7 percent increase next year

April 21, 2017

By Sam Richards

srichards@bayareanewsgroup.com

PACHECO — Opting for a lower first-year rate hike than proposed, the Central Contra Costa Sanitary District voted Thursday afternoon to raise sewer rates 5.5 percent for residential and commercial customers in July, and another 7 percent in July 2018.

The increases will help pay for Central Sanitary's plans to spend \$873 million to replace aging pipes, treatment equipment and other infrastructure over the next 10 years. That includes adding sewage treatment capacity ahead of expected residential and business growth in the area, and to add and upgrade equipment to increase energy efficiency and to meet requirements of future environmental regulations. The rate hikes are expected to generate \$12.1 million in the first two years.

The original plan was for a 7 percent raise both years. But after district General Manager Roger Bailey told the board members of a newfound \$2.7 million in budget savings, they voted — after more than an hour of going through various scenarios and proposed- but-failed motions — 4-1 to go with the smaller hike the first year. The 7 percent jump in 2018-19 may also come down, depending how various future scenarios play out. "The grayness we have now will become a bit clearer a year from now," board President Paul Causey said.

Central Sanitary spokeswoman Emily Barnett said Wednesday the added revenue is needed to keep its system of pipelines, treatment facilities and related technology as up-to-date as possible. "We believe our customers expect a certain service level, and that we need a system in place that serves them," she said. For a single-family house or mobile home, the current \$503-a-year sewer service fee will go up to \$530 starting July 1. Rate increases for commercial customers will be more complex, based on the square footage of the business, the amount of water they use and the level of treatment that water needs. For example, restaurants, school cafeterias and dairy-related customers demand a higher level of treatment, based largely on the amount of fats in their wastewater.

Board member Tad Pilecki proposed a 4.8-percent raise each of the two fiscal years, and redirecting some money currently earmarked to help pay down the district's

unfunded pension liabilities to instead pay for needed capital improvements. But other trustees rejected that, with Dave Williams saying he didn't want to disrupt the district's recent momentum in drawing down that debt.

Dublin San Ramon Services District spokeswoman Sue Stephenson said that district will propose an increase in residential rates from the current \$382.38 a year to \$397.38 starting in July, a jump of about 4 percent. That public hearing is scheduled for June 20.



CoCo San Sustainable Farm Project Moving Forward Thanks to \$80,000 in Recently-Secured Funding Commitments

Funds will be used to assemble a solar light greenhouse as part of the project's innovative approaches to providing low-cost produce for the community; Total project funding exceeds \$100,000, including contributions from Contra Costa County and a personal donation from National University System Chancellor Dr. Michael R. Cunningham

Martinez, CA, April 28, 2017 --(PR.com)-- An innovative urban sustainable farm project in Contra Costa County that will provide produce for a local food bank and schools has taken a major step forward. The CoCo San Sustainable Farm, a project of non-profit AgLantis (501c-3), recently secured a \$50,000 contribution from the County to help build a 6,000-square-foot hydroponics greenhouse on a buffer land section of the Central Contra Costa Sanitary District located in Contra Costa County's Northern Waterfront.

The recent development brings the project's total funding to more than \$100,000, which includes a donation from National University System Chancellor Dr. Michael R. Cunningham, who is personally contributing a total of \$30,000 over three years.

The most recent \$50,000 support, which comes from the Contra Costa County Livable Communities Trust Fund at the recommendation of of Contra Costa County Board of Supervisors Federal Glover and Karen Mitchoff, is for the assembly of a 6000 square foot, high-tech, commercial greenhouse donated by AgraTech, Inc., of Pittsburg, CA. Thanks to the latest funding, the greenhouse is expected to be built in 2017. AgLantis will be raising funds from the community to build the required fencing and to equip the greenhouse. The aim of the CoCo San Sustainable Farm is to grow produce on the 15-acre urban farm in 2018.

The project addresses a need to reduce nutritional poverty - an issue of global importance - by providing access to free or low-cost fresh produce through a unique combination of using urban public buffer land, community involvement, otherwise wasted recycled water, and harnessing the produce growth efficiencies of greenhouses.

“Very seldom are you able to work on something of this magnitude that has such a widespread impact on the public good,” said Carolyn Phinney, president of AgLantis. “The CoCo San Sustainable Farm will be able to feed a countless number of people who might otherwise go hungry; it will serve as a vehicle to educate a large number of students; it will use high-quality, recycled water; and because it has brought so many people together, it is doing so much in building a community. You can't ask for more than that.”

The project aligns with the County's Livable Communities Trust Fund's goals in promoting innovative land use planning and design principles, and promoting economic revitalization.

According to the project plans, CoCo Sustainable Farm, situated in Contra Costa County's Northern Waterfront across state Route 4 from Buchanan Field Airport, will be irrigated by recycled, nutrient-rich,



agricultural grade water that currently ends up in the Suisun Bay as treated wastewater. Also, the farm will benefit from the efficiencies of greenhouse production, which produces up to 40 times the volume of food at one-tenth the water use.

The Contra Costa Food Bank, located about a mile away, will be responsible for picking up and distributing fresh produce from the farm to its clients and area schools. Community supported agriculture boxes from the farm will provide low-cost, seasonal food to local residents. And the farm hopes to be a jobs incubator for the green economy. Upcoming plans for the project include constructing fences and a water delivery system to irrigate the farm, amending the soil on the 15 acres, and building a road with recycled asphalt to access the site.

In addition, CoCo San Sustainable Farm will serve an educational function, serving as a hands-on outdoor classroom for students (especially from Diablo Valley College, Horticulture) and local residents, highlighting that every aspect of science and engineering happens on a farm: physics, soil science, hydrology, microbiology, and even psychology along with mechanical, electrical and civil engineering. Local John F. Kennedy University, an affiliate of the National University System, also plans to have students involved in the farm.

“The community support has been truly inspiring,” said Phinney. “It really underscores what can happen when people come together for the common good.”

In addition to the recent contributions, Tesoro has donated \$15,000; PG&E has provided \$7,500 in support, and Leigh E. Johnson (Trial Whisperer) has been an ongoing major individual donor. Community donations have exceeded \$10,000; Phinney said. The Central Contra Costa Sanitary District is leasing the land to AgLantis for \$1 per year and providing all the tertiary treated water it needs for the effort. Others donating services, funds, or materials include County Quarry (donating the road and pad for the greenhouse), and other in-kind donation from Republic Services, Davey Tree Service, and Discovery Homes. All of the labor for the last six years of developing this project has been donated. Another \$100,000 is needed to fence the farm and equip the hydroponics greenhouse.

About AgLantis

AgLantis is a California non-profit public benefit corporation, 501c-3. The work being done on the CoCo San Sustainable Farm has a quadruple bottom line - social Equity, Educational, Environmental and Economic. This farm is a model for healthy, fresh, affordable, local fresh produce; education for the community; environmental protection; and green job creation.

Contact Information:

AgLantis

Carolyn Phinney

925-788-7374

[Contact via Email](mailto:carolyn@salads4schools.org)

salads4schools.org

Online Version of Press Release:

You can read the online version of this press release at:

<http://www.pr.com/press-release/714440>